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THESIS

THE HISTORY OF THE WAGES-FUND THEORY

BY

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(A.B., MOUNT HOLYOKE COLLEGE, 1930)

SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

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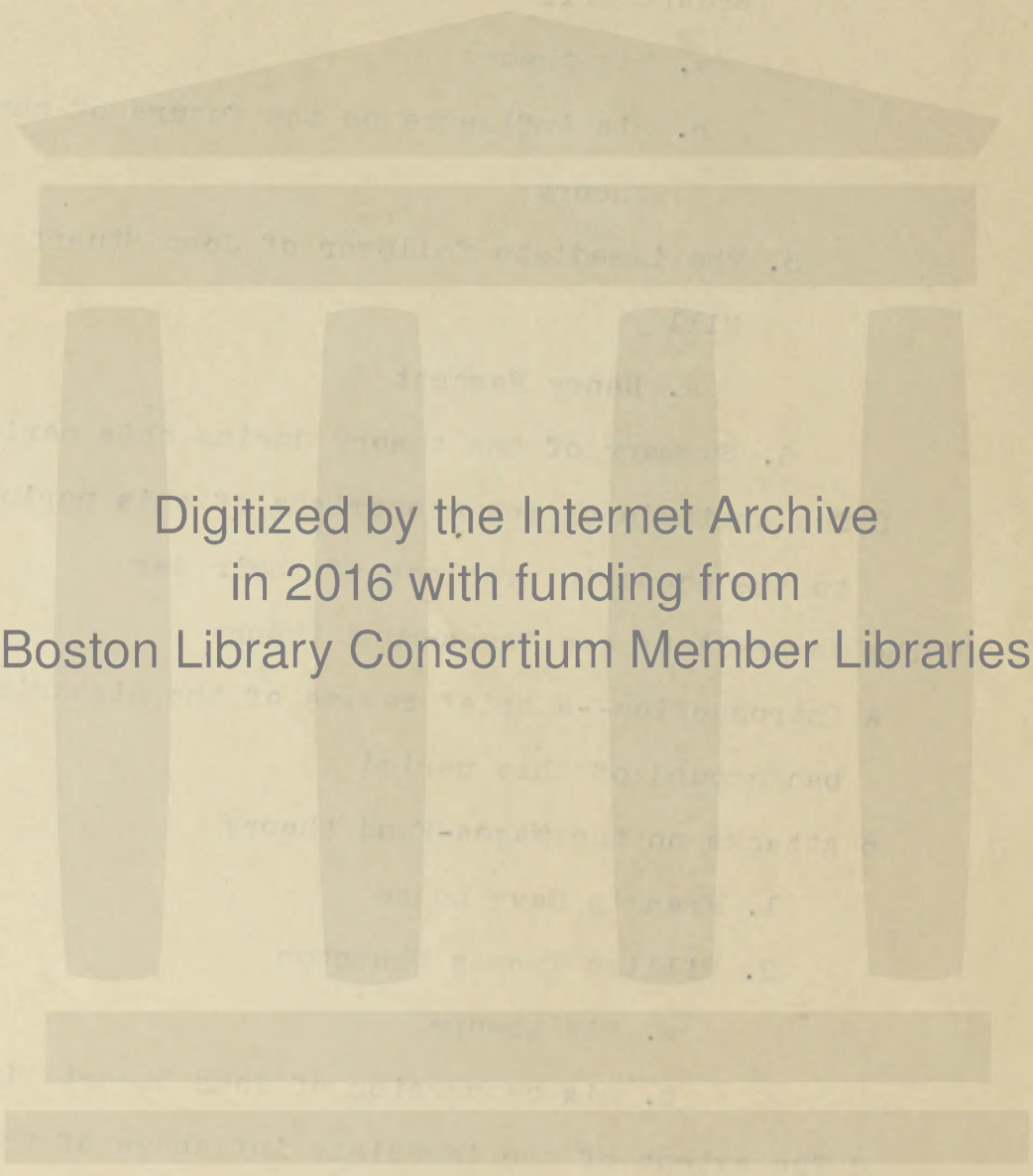

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THE HISTORY OF THE WAGES-FUND THEORY

Chapter 1

The theory of the Wages-Fund, which is essentially an English doctrine, has been the subject of much discussion from the early nineteenth century to the present day. During more than the first half of the nineteenth century, this was the prevailing wage theory, but in the latter part of the century it was superseded by one form or another of the Productivity theory of wages. Though the theory, as it was once held, is now generally discredited, economists of the twentieth century consider that there is a core of truth within it. Many economists now content themselves with only a brief summary of the doctrine, its weaknesses and inherent truths, before they begin the discussion of whatever theory of wages they believe to be the true one. The Wages-Fund doctrine has held an important place in economic theory not only because of its changing fortunes in the course of its history, but chiefly because of the effect it once had on the relations between employers and laborers. The attitude of employers to the amount of wages they should pay became fatalistic: whatever they decided to pay could be justified as the outcome of a natural law. The laborers' attitude was

equally fatalistic: no matter how much or how little work they did, they would receive the same amount of wages. Socialists and social reformers opposed this doctrine because they believed that this "natural law" was an excuse to exploit labor and therefore was unethical.

Francis Amassa Walker has combined statements of Arthur Perry, Henry Fawcett and John Stuart Mill to define the Wages-Fund theory. The result is a rather long definition but one which is at the same time quite complete.

> "There is, for any country, at any time, a sum of wealth set apart for the payment of wages. This fund is a portion of the aggregate capital of the country. The ratio between the aggregate capital and the portion devoted to the payment of wages is not necessarily always the same. It may vary from time to time, with the conditions of industry and the habits of the people; but at any given time the amount of the wage-fund, under the conditions existing, is determined in the amount of capital.
>
> The wage-fund, therefore, may be greater

or less at another time, but at the time taken is definite. The amount of it cannot be increased by force of law or public opinion, or through sympathy and compassion on the part of the employers, or as the result of appeals or efforts on the part of the working classes.

The sum so destined to the payment of wages is distributed by competition. If one obtains more, another must, for that reason, receive less, or be kept out of employment altogether. Labourers are paid out of this sum, and out of this alone. The whole of that sum is distributed without loss; and the average amount received by each labourer is, therefore, precisely determined by the ratio between the wage-fund and the number of labourers, or, as some authors have preferred to call it, between capital and population.

The wage-fund having at any given time been determined for that time, the rate of wages will be according to the number of persons then applying for employment. If they be more, wages will be low; if they be fewer, wages will be high."*

* Walker, Francis A., The Wages Question, p.138-139

This definition is not quite adequate. The fact that this theory applied only to manual laborers is omitted. Furthermore, in this definition, there is not sufficient emphasis on the fact that the Wages-Fund is composed of commodities which the laborers need. The theory is defined as it was held by its last exponents, all of whom considered the Wages-Fund to be rigid for short periods of time and tended to discuss a money fund. It is impossible to give a definition of the doctrine which will give a true picture of it during the entire period when it was upheld. The early economists from Ricardo to John Stuart Mill rarely give a definite expression to their belief as to the rigidity of the fund. Even now some economists maintain that the earlier advocates believed in a rigid fund; and others, that they did not. There is evidence to support either contention. The theorists from Ricardo to John Stuart Mill differ in their expression of this doctrine to such an extent that it is impossible to construct a tangible definition. These paragraphs which have been quoted from Walker's "The Wages Question", with the qualifications which have been made, in my opinion, express the underlying ideas in the minds of the earlier exponents of the Wages-Fund theory even though these ideas were not expressed in

words and cannot be proved to have been in the thoughts of these men. The idea of rigidity was certainly imputed to this fund by capitalists, laborers and Socialists of the period.

There are many difficulties which beset one in attempting to write a history of the development of this doctrine. The economic writers of the earlier part of the nineteenth century were not careful to differentiate between terms or between the uses a particular term may have. This complicates the problem because even after a detailed study of the context, it often remains difficult to understand in just what sense the author is using a word. Many of the early economists define capital and then change the definition without any excuse. They are quite able to distinguish money funds from real funds, but many are unable to keep these distinctions always in mind. A discussion of a real Wages-Fund is very apt to be converted, quite unconsciously, into a discussion of a money Wages-Fund. Because these writers were unable to maintain the distinctions they made between terms or to keep to a definition of a particular term, the logic of their arguments is hard to follow. Their discussion of this theory is often vague; it is hard to tell what they really did believe. The conclusions as

to what a particular economist thought often depends merely on the student's interpretation. Two students could come to totally different conclusions as to an economist's idea of the rigidity of the Wages-Fund, and both would have equally good grounds for their belief. In practice, as it will be shown later, this very situation does exist. Later economists who have written critiques of wage theories are often noncommittal in discussing the opinions of Ricardo, Torrens, James Mills and others of the Classical school in respect to this doctrine. In fact, critics doubt their own conclusions, if they do make them, to such an extent that in their discussions they are very apt to contradict themselves. This is especially true when they attempt to assign the authorship of the Wages-Fund theory to a particular economist.

The theory was definitely formulated during the first quarter of the nineteenth century in England where the Industrial Revolution was well under way. The economic conditions of the country were important in its development, and for this reason a brief sketch of the economic history of England during the eighteenth and nineteenth centuries is essential. The condition of the laborers brought about by the Industrial Revolution

and the development of the factory system gave rise to a discussion of the causes which determine the rate of wages. Economists observed the prevailing conditions and then developed a wage theory which seemed to them to account for the causes which determine the rate of wages. This Wages-Fund theory thus embodied the existing practices and conditions of the time and then, in turn, gave a sanction to these practices and conditions as the normal effect of a natural law.

One of the significant facts in the industrial history of England is the growth of population during the eighteenth and nineteenth centuries. By the end of the eighteenth century, the growth of population was a source of anxiety to people interested in the industrial future of England. From 1700 to 1750, the population had increased over seventeen per cent; and from 1750 to 1800, fifty-two per cent,* a tremendous increase in the rate of growth. The population of England and Wales combined was 8,802,000 in 1801; and 32,527,000 in 1901.** Thus the population increased at an even faster rate in the nineteenth century than it had in the preceding one. Toward the end of the nineteenth century the rate of increase slowed up, but the span of life increased.

Up to almost the end of the eighteenth century,

* Dietz, Frederick C., A Political and Social History of England p.402

** Usher, Abbott, An Introduction to the Industrial History of England p.270

agriculture was able in normal years to supply more than enough for the subsistence of the population. Though the number of agricultural laborers had not increased to any great extent, the productivity of these laborers was greatly increased by the use of new and improved machinery, new discoveries as to the benefits of crop rotation and fertilizers. The knowledge of the advantages of the improved technique in agriculture gave rise to the demand for the Enclosure Acts by the landowners. Under the medieval three field system, the farmers in the community had to agree to any changes in their practices in agriculture; -- this hindered progress. (The land was held individually but farmed in common under the old system). Furthermore, the system of common pastures prevented the scientific breeding of cattle. Landowners felt that they would be able to get better results from their own lands and to charge higher rents if farmers would adopt the new scientific methods in agriculture. Since these methods were not adapted to the existing three field system, they urged the adoption of the Enclosure Acts.

The movement for enclosure started as early as the fifteenth century under Henry the Seventh and was stimulated by the need for sheep pastures. During this

early period, it was accomplished with the common consent of the large proprietors of the village who had property rights in a particular piece of land.* In the seventeenth century a few Enclosure Acts were passed by Parliament, but it was during the eighteenth and early nineteenth centuries that Parliament passed its most important Enclosure legislation.

These acts which were passed during the eighteenth and early nineteenth centuries were highly beneficial from the view of the large landowners though they were detrimental to the welfare of the small landowners and the agricultural laborers. Under the old system, yeoman farmers and agricultural laborers had had rights to the common pasture, and the latter group had had a small piece of land attached to their houses and cultivated it for their own use. When lands were enclosed, the yeoman farmer often received such a small piece of land that he could not support himself by farming. The agricultural laborers lost the advantages they had had and became solely dependent on their low customary wages. The result of this movement was to add agricultural workers to the number of the unemployed, or at least to add to those who were dependent to some extent on charity. The advantage

* Usher, Abbott, An Introduction to the Industrial History of England p.233

of these acts lay in the fact that the productivity of the land was greatly increased. The Enclosure Acts made possible the adoption of a more scientific technique in agriculture.

From 1790-1815, a period during most of which England was at war with France, the harvests were so poor that England did not produce enough food to supply her own people and had to import grain. The crops of 1810-1811 were especially poor. England and France though still at war arranged, to their mutual satisfaction, for France to export grain to England. France was suffering from an industrial depression during this period but her harvests had been especially good and there was a surplus. The French still had the old mercantilist notion that gold was the one thing to be desired. France believed that by exporting grain to England and securing English gold that England's position in the war would be weakened.

During this period of bad harvests English statesmen believed that they should promote domestic agriculture by protecting it from foreign competition. With this in mind, these statesmen passed the Corn Law of 1815 which forbade imported wheat to sell under the equivalent of $2.50 a bushel. In the following year there was another poor harvest so the price of grain rose to that at which

foreign wheat could be imported. Since the capitalists believed that the cost of food was an element in the cost of production, they exerted their influence to have the Corn Law repealed. In 1827 the price at which corn could be imported was lowered. The law, though it was opposed by both the laborers and the manufacturers, was not entirely repealed until 1846, and then it was repealed only because both England and Ireland were faced with a famine. In general after 1830 the condition of agriculture improved but this industry became less and less able to furnish the population with its food supply. English agriculture received its death blow around 1875 due to the competition from the United States. Finally England has come to rely on other countries to furnish her food supply. Since 1874 in England there has been a trend to smaller farms than in the early nineteenth century when farms averaged around two to three hundred acres, but these small farms are more intensely cultivated.

Before the Industrial Revolution technical questions such as the causes which determine the rate of wages aroused little or no interest. At the beginning of the eighteenth century most people relied on agriculture for their living, but by the end of this century agricultural labor had increased only slightly while the industrial

workers had increased from 240,000 to over 3,000,000. In 1700, industry was organized on the domestic system. People worked in their own homes on materials supplied by the Clothier who not only supplied the raw materials but also found markets for the finished product. The workmen were not entirely dependent on what they earned under this system. Their homes usually had a few acres which the family cultivated and they usually owned a cow which could be pastured in the common pasture. The Clothiers were in a position to take advantage of these workers in the matter of wages because the former were not organized. The effect of the Statute of Apprentices of 1563 in regulating wages in the seventeenth and early eighteenth centuries is questioned. Mr. Tickner says this law probably applied to rural workers more than it did to the urban workers.* Adam Smith said that this law had no effect on wages in the new trades which rose after the passage of the act.** In the first quarter of the eighteenth century the domestic system began to break down in certain industries, such as the silk industry, but it did not entirely disappear until the end of the nineteenth century.

* Tickner, F. W., A Social and Political History of England p.346

** Smith, Adam, The Wealth of Nations, Vol. I, p.199

The years 1725-1775 were a period of transition to the factory system. The latter part of the eighteenth century and the nineteenth century were characterized by the factory system but it was by no means universal. New and heavier machinery, the need for more discipline for the workers, the need to coordinate the various stages of manufacture for more effective production and to effect economies were the main causes which gave rise to the factory.

At first the condition of the industrial laborers was much better than that of the agricultural laborer or those under the domestic system* But in the last quarter of the eighteenth century, business conditions played into the hands of the employers. There was a surplus population which had no employment. In a period of industrial activity, the employers could hire this surplus population and also attract additional laborers from the country. The agricultural laborers had a lower standard of living than the urban workers. The Enclosure Acts had operated to deprive small yeoman farmers and agricultural workers of whatever small pieces of land or rights to the common lands that they had possessed. The agricultural laborer had become dependent on his wage

* Dietz, Frederick C., A Political and Social History of England p.417

which remained low in a period when crops were poor and prices were rising. When business became depressed, the industrial employer would force the older factory workers to accept a lower wage, and therefore a lower standard of living, by threatening to emply agricultural laborers in their place whom they were assured of being able to hire at lower wages. With the lowered wages and longer working hours which the capitalists were able to enforce, parents had to send their children to work. In some industries women and children were preferred to men because they would accept lower wages and do the same work just as well, if not better, than the men could.

The capitalists during the Industrial Revolution usually came from yeoman stock. They started with little or no capital, but by working hard and turning their profits back into their business they were able to amass considerable capital. These capitalists seem to have worked hard themselves and were ruthless as far as their employees were concerned. The workers' wages decreased and their working conditions became most unsatisfactory and entirely unregulated. The workers began to organize into trade unions to bring pressure to bear on their employers to secure better wages and working conditions within the factory. In 1799, a law was passed which

prevented the workers from combining and forming trade unions. Both before and after this act of 1799, the workers had also tried to have the wage clauses of the Act of Apprentices of 1563 enforced and interpreted to their advantage. They also wanted the clauses restricting the number of apprentices and the conditions of apprenticeship to be applied to factory workers. They were unsuccessful in reviving those clauses of the Act of 1563 which would restrict the activity of the employers. The Act of Apprentices was repealed in 1814. The removal of all regulative legislation promoted unrestrained competition among the workers for employment. The conditions under which work was done in the factories became so bad that they finally aroused public opinion. Factory and labor legislation was the result of this agitation for reform.

The first factory act was passed in 1802 to regulate the labor of pauper children who were being exploited. Later the labor of all children was regulated. In 1819 no child under nine years of age was allowed to work, and children from nine to sixteen years were not allowed to work more than twelve hours a day. These early factory laws were not enforced very well. 1833 marks a new stage in factory legislation when provision for effective

administration was made in the regulative acts. In this year an act was passed which provided that children from nine to thirteen years of age could work only six hours a day and "young persons" could work twelve hours. Factory inspectors were provided to see that the provisions of this act were carried out in accordance with the law. The labor of women, in the law of 1844, was limited to the same amount as that of "young persons". Three years later the hours of labor for women and "young persons" was still further restricted to ten hours a day. There was also legislation to regulate the safety of the laborers previously protected by law while they were at work. Regulations to protect the workers in the dangerous trades were the subject of a law in 1864. Since that time there has been a great deal of legislation along these lines. A law passed in 1880 made the employer liable for accidents caused by defective machinery or due to the carelessness of persons in his employ. Previously, by common law, the employer was liable only when he had been negligent directly himself. In 1897 another compensation law was passed which made it easier for the employee to obtain damages than the earlier law had done. The simple fact that a man was injured while he was working made him eligible for compensation; he no longer had to prove that the employer had been neglectful. The scope of this act has since been broadened. The Factory Acts were amended

and consolidated in a systematic code in 1901. In the latter part of the nineteenth century and the twentieth century there has been a great deal of legislation providing for various kinds of insurance for the workers such as unemployment insurance, health and old age insurance,

The Combination Act of 1799 was repealed in 1824. Trade unions became lawful but the workers were still forbidden the means to make these organizations effective except within narrow limits by a law passed in 1825. The first unions were generally unsuccessful because they were temporarily organized for the purpose of striking. These unions did not have funds to finance strikes, and public opinion was against this means of effecting their aims. The unions were further hampered because any measures which they took which could be termed in restraint of trade were illegal. Strikers could not picket or leave work unfinished. Even to threaten to strike for better wages or better conditions was termed illegal.*

During the period 1850-1870 trade unions became permanent organizations which used the strike much less frequently as a weapon. The unions of this period were organized to provide for their members who were ill or unemployed, as well as for the purpose of bargaining with

* Tickner, F.W., A Social and Political History of England p.346

the employers. During this period the emphasis was on Parliamentary action. For this reason the Chartist Movement was important among laborers who felt that it was essential to their welfare to have the franchise and work for reform measures through their representatives in Parliament. In 1867 most of the industrial laborers gained the franchise. In this year, the trade unions were declared illegal by court decision. The Act of 1871 however, based on a temporary law of 1867, gave the unions an assured standing. Unions were registered and had the privileges of a corporation without being incorporated. The trade unionists preferred this status because they avoided the disadvantages which incorporation would have for them.

A new movement in trade unionism is apparent after 1886. There was a desire for more vigorous action because of the great unemployment of the times. Towards the end of the nineteenth century there was a tendency for a closer relationship and more co-operation between various unions. In 1893 the independent labor party came into being and was supported by the workers because of their increasing faith in state interference to regulate working conditions. Since 1900 the trade unions have been recognized as an important factor within the industrial system. The unions however are now as

responsible as corporations are for their actions. This responsibility was forced upon them by the decision in the Taff Vale case.

A brief outline of the history of the English Poor Law is essential to a complete understanding of the industrial history of that country. The basic Acts before 1700 were the Act of Apprentices of 1563 and the Poor Law of 1601, though such legislation can be traced back into the fifteenth century. The act of 1563 was based on the idea that persons who could not support themselves and their families on their wages were entitled to call on the state for whatever was necessary to attain the position where their families could be adequately supported. The general idea was that wages should be adjusted to the price of food and thus obviate the need of relief. However, if wages were not properly adjusted, laborers had the right to ask for help in the parish where they lived. The Poor Law of 1601 was based on measures previously passed. By this Elizabethan act which became the basic poor law until the early part of the Nineteenth century, contributions for poor relief became compulsory. Overseers were appointed to adminster relief. The money was to be given to the impotent poor, used to teach trades to poor children, and to put the unemployed and vagrants to work. Those who refused to work were sent to the house of corrections where

they were made to work. This law was not effectively administered until after 1629 when the Privy Council interfered and supervised the administration of poor relief. With the Civil War in England these laws were again inefficiently administered.

The Act of 1662 was passed to aid the poor still further. This law provided that if a man moved to a new parish and paid a rent of under ten pounds, two justices of the new parish could send him back to his former parish unless he could convince the justices that he would not become a burden on the poor rates of the new parish. This law was later amended so that people could move from one parish to another but when they became dependent on poor relief, they were sent back to their native parish. The effect of these acts was to restrict the mobility of the laboring population.

By an Act of Parliament of 1722, the general power to erect poorhouses was given to parishes or to unions of adjacent parishes. Previously a special act of Parliament was necessary for every poorhouse which was built. People were forced to go to the poorhouse in order to receive relief, and were given work to do. This system of relief in poorhouses began to break down and by the act of 1782 only the impotent poor were to be sent to the

workhouse. The overseers were supposed to find work for the unemployed able-bodied poor in the parish. Poor relief was to be given to the poor in their own homes. The effect of this act was the reverse of that of 1722; the poor rates began to increase again. By the Speenlanhand Act of 1795 money was to be granted to the poor to raise their wages to at least the level of minimum subsistence. Employers took advantage of this act and reduced wages because they knew that deficiencies in a workman's wage would be made up out of the poor rates. This act took away from workmen the incentive to work by putting a "premium on idleness"*. The poor rates rose even more rapidly than formerly.

During the end of the eighteenth and the early nineteenth centuries the number of destitute people who needed assistance increased. The Enclosure Acts were one factor in the increasing poverty of the poor. The poor laws themselves tended to increase the number of paupers. Agricultural laborers no longer had plots of land attached to their homes and no longer had the right to pasture their cows in the village pasture. These laborers had to rely on their wages to support them, but these wages remained at their customary level. The immobility of the laboring population was another factor; poor people were hindered from leaving their own parish and going to another where

* Tickner, F. W., A Social and Industrial History of England, p.544

work was more plentiful. The effect of the Poor Laws was to lower wages still further and to the point where a man, even though he did work, had to rely to some extent on poor relief. During the Napoleonic Wars the numbers of those who were assisted by poor relief increased still further because of the poor crops and high prices.

During the Industrial Revolution men were not sure of constant employment in industry. Production was not a continuous process; one year there would be a great deal of business in one particular industry and the next year this same industry would be forced to either close entirely or go on a part time schedule. This condition was especially true during the war with France at the end of the eighteenth century. During this war various industries were producing goods mainly for the government. Government orders were given out, but at such intervals that there was apt to be a period of idleness before the next orders were issued. Thus the numbers of the unemployed fluctuated a great deal within a comparatively short stretch of time.

The evils of this system of Poor Laws especially under the existing conditions in industry were apparent by 1815 but nothing was done to remedy them until after a Commission of Enquiry was appointed to investigate and report to Parliament. This commission pointed out the evils which have

already been mentioned and in addition condemned the workhouses because all sorts of people of all ages were living there. They furthermore pointed out that people who received poor relief were better off than those most poorly paid people who were yet able to support themselves. Hard-working men were being replaced by paupers whose labor was sold to the highest bidder by the overseers. The net result was to lower wages but there was no change in the number of the employed; it was just a case of replacing one man by another.

The result of this report was the Poor Law Amendment of 1834 which aimed to correct the abuses under the existing system. The act was revolutionary in theory. From this time on poor relief was to be based on the premise that the position of people receiving relief should not be as good as that of the lowest paid people who were able to support themselves without assistance. The workhouse again became prominent. The able-bodied poor, except in the case where medical relief was necessary, had to receive relief in the poorhouse. The aged and impotent alone were to receive outdoor relief. A new administrative system was also introduced. Hitherto the parishes had been the administrative unit and controlled their own policy as a rule. Under the Act of 1834, England was divided into administrative districts which consisted either of single

large parishes or of a union of smaller ones. The Board of Guardians was to be composed of popularly elected and unpaid representatives; these Boards were to be supervised by the Poor Law Commissioners. In 1847 the Commissioners were replaced by a Poor Law Board whose President was to be a member of the government. The administration of the Poor Law became a national affair. The Act of 1834 operated to decrease the number of the poor. Certain modifications of a minor nature have been made in this Poor Law Amendment but it is still the basic poor law. In 1905 a commission investigated the administration of the poor laws and their effect on the poor. The report the commission gave to Parliament indicated that a number of reforms were necessary but the commission was divided as to the best means of reforming the existing system. Little has been done to embody the reforms suggested in either report.

During the eighteenth century, the general policy of English statesmen was based on mercantilism. This philosophy of economics was adapted to the domestic system. When the Industrial Revolution came, the capitalists had little interest in this type of economic policy; they believed in laissez-faire. They wanted raw materials as ~~cgeaokt~~ cheap as they could get them whether these materials came from their own country or from abroad. They

preferred to have no government intervention in their labor policies because under a system of laissez-faire the workers were entirely at their mercy. After the Industrial Revolution was well under way, the capitalists had no fear of foreign competition and were in favor of free trade, -- this was especially true after the war with Napoleon and the breakdown of the "Continental System" in 1815. During the latter part of the eighteenth century there are several events which show that the idea of laissez-faire was gaining support but the general policy with foreign nations remained mainly mercantilist. This new economic policy received a set back during the war at the end of the century but triumphed by 1860. However, by 1860, the belief was in a restricted laissez-faire system as can be seen in the movement for government interference in the behalf of the laborers. Since 1873 there has been more or less descussion as to the relative advantages of free trade and protection. England, since that time, has felt foreign competition more keenly. Furthermore as foreign nations become industrialized, they are less able to furnish England with the food supply which she has become dependent on. The project of a Customs Union for the Empire is favored by some of the protectionists.

In the following chapters, the influence of the economic background on the development of the theory will be

noted from time to time. At the end of the second chapter, after the theory has been traced through the period of complete expression, there will be a summary of the attitude of the various economists toward the current economic problems in England. Their attitude toward several current problems was definitely influenced by the Wages-Fund theory.

Chapter II

The history of the Wages-Fund theory can be divided into four periods: development (-1817?), complete expression (1817?-1869), criticism (1869-1896), and re-evaluation (1896 -). There is a long period, over half a century, during which various essentials of the theory appear. The earlier economists who held a Wages-Fund theory, that is during the second period, did not actually give a complete or consistent expression to the doctrine. Because of this vagueness in the early discussions, it is difficult to assign a specific date to the beginning of the period of complete expression. In the following pages, 1817 is advanced, with some hesitation, as will appear, as the beginning of the period. Whatever date is assigned, and other dates have been, is open to considerable objection.

The Wages-Fund doctrine is essentially an English theory. For this reason, during the first two periods of its history, attention will be paid exclusively to English economists with the exception of three French writers who have a definite connection with the development of the English theory. It must be realized, however, that the Wages-Fund theory was held in other countries during these periods as well as in England. In Germany, the Wages-Fund theory was attacked by Hermann as early as 1832.

German economists followed Hermann's lead to an increasing extent as time went on. The criticism of the German economists did not affect the development of the theory in England. In the third and fourth periods of the history of the Wages-Fund, attention will be paid to both English and American economists. American theorists have had an important part both in the refutation of the doctrine and in its re-evaluation.

Most of the Mercantilist writers paid so much attention to the problem of gaining a favorable balance of trade and of making their country the most powerful on earth, that they paid little attention to the problem of distribution. Once in a while one of these writers does mention wages, but only to remark that when the price of food is low wages will be low. In their opinion lower wages meant an advantage in selling their goods abroad because th prices of their goods would be low as long as wages were low. Locke upheld this view of the mercantilist. He says that laborers "live from hand to mouth" and hints that their wages tend to a minimum of subsistence.* Petty, another mercantilist writer, on the other hand, believed that low prices of food had a detrimental effect on labor; their labor would become less productive and the cost of labor would rise.** The Physiocrats were about as silent

* Locke, John, Several Papers Relating to Money, Interest and Trade, p. 34

** Petty, William, Political Arithmetick, p. 45

on the subject of wages as the mercantilists were.* Where they comment on wages, they tend to express the subsistence theory of wages.

Before Adam Smith had published the "Wealth of Nations", Turgot (1727-1781) made a few remarks about wages and capital. He was one of the first economists, if not the first, to write on the subject of distribution. He believed that the earth is the first and only source of wealth, and the husbandman is the sole producer of all riches for he is the only one who produces over and above the wages of labor. The artisan does not create revenue either for himself or for others; he receives pay only for his labor. The revenue the husbandman gets over and above his wages of labor supplies the rest of society with its subsistence and the materials of its needs, -- this is the only fund for the wages which all the other members of the society receive in exchange for their labor.** The price of the workman's labor results from the agreement which he makes with the employers; and where there is competition, the wages of labor are affected. In any kind of labor it can not fail to happen that the wages of workmen are limited to what is necessary to purchase subsistence for him. Thus it is evident that Turgot believed in a wage which could

* Taussig, Frank W., Wages and Capital, p. 127
** Turgot, Anne R. J., Reflections on the Formation and the Distribution of Riches, p. 10

fluctuate to a certain extent about the minimum of subsistence level; these fluctuations were caused by competition.

Turgot defines capital as those accumulated values which a man saves from the revenue from his land or from his wages over and above his subsistence. These funds or capital could be used as advances to industry, trade, agriculture, for the purchase of materials or for the payment of wages. Wages were paid out of capital which, according to Turgot was the result of the bounty of nature. Turgot, however, never inquired into the causes which determine the rate of wages. At times he hints that wages tend to a minimum of subsistence which he does not definitely define. When there is competition wages fluctuate about this level. These statements of Turgot which are to be found in his "Reflexions sur la Formation et la Distribution des Richesses" (1767), are very similar to those of later economists except for his definition of wealth and capital.

Before Adam Smith's time, little can be found on the subject of wages. Where economists do write on this subject, they seem to hold a subsistence theory. Turgot probably made the first contribution to the Wages-Fund theory when he said that wages are paid out of capital.

Adam Smith follows Turgot in this respect but he re-defines capital. The difference in the economic organization of England and France was the cause of this difference in the two theories of capital. France was not as far advanced in the Industrial Revolution as England was.

Adam Smith (1723-1790) was the first English economist to attack the problem of distribution. In "The Wealth of Nations" he discusses wages in a much more scientific and detailed manner than any economist before his time. He believed that labor was the real measure of exchangeable value.* Originally the produce of labor was its natural wage but in most cases the laborer now has to share the produce of his labor with the owner of the stock who employs him.** Here we find one of the first hints of the productivity theory of wages in the history of economic thought.

The Wages-Fund theory is given partial expression in various parts of "The Wealth of Nations". Smith said that the demand for labor cannot increase except in proportion to the increase in "the funds which are destined for the payment of wages".*** But nowhere does he intimate that the laborers must necessarily get all of the funds which they possibly could. These funds consisted

* Smith, Adam, The Wealth of Nations, 1793, Vol 1, p.4
** Ibid, 1814, Vol I, p.79
*** Ibid, 1793, Vol. I, p.112

of two parts: the revenue over and above what is necessary for the subsistence of the masters, and the stock over and above what is necessary for the employment of the masters. Smith did not believe that all wages were paid out of capital. Income or revenue was a source of wages, but of the wages of unproductive labor, such as servants, which was a loss to the community.

Smith distinguished between "stock" and "capital". Stock is the sum of the finished commodities reserved for immediate consumption, while capital, whether fixed or circulating, was expected to afford revenue. He uses the term "stock" often in a broad sense to include both capital and stock. In connection with wages, Smith gives the impression that "stock" consists of funds of money rather than a fund of commodities ready for distribution. He saw that workmen usually had advances made to them for their subsistence before the article they were working on was completed. He believed that these advances were made by the employers out of capital and conceived of the source of wages as entirely in the hands of the employers. At this time, the employers had accumulated capital and were paying wages out of capital, -- that is out of the money funds they had accumulated.

The real reward of labor is the quantity of the

necessaries and conveniences of life which money wages will buy. Real wages vary from time to time but they do not always correspond to fluctuations in the price of provisions, -- they are often quite the opposite.* The money wages of the lower grades of labor , on the other hand, are regulated by two circumstances: the demand for labor and the ordinary or average price of provisions.** In a stationary state, wages are determined by the minimum of subsistence. When the state of society is advancing or declining, the supply and demand for labor causes wages to fluctuate about the minimum of subsistence. Smith was in favor of high wages because he believed that they increased the industry of the people.

The number of useful and productive laborers, according to Adam Smith, is in proportion to the quantity of capital stock which is used in putting them to work and to the particular way in which the capital stock is itself employed. The demand for labor cannot increase except in proportion to the increase in the funds which are destined for the payment of wages. Wages rise only when capital is increasing at a faster rate than the supply of labor, but the possible or probable extent of

* Smith, Adam, Wealth of Nations, 1793, Vol.I, p.112
** Ibid, 1814, Vol.I, p. 139

the rise in wages is not discussed. It would seem that the maximum amount of industry was limited by the amount of capital but Adam Smith does not make this statement.

The amount of real wages which productive laborers get depends on the proportions in which the annual produce is divided among the productive and unproductive elements of society.* Here the Wages-Fund is evidently a fund of commodities and it is possible that the proportion might vary even within the year. At another time Adam Smith says that the cheapness of provisions by increasing the fund which is destined for the maintenance of servants will encourage the master to hire more.** Whatever Smith meant to say in this sentence is poorly expressed; the sentence can be interpreted in two ways. I believe that Smith here conceived of the Wages-Fund as a fixed sum of money in the hands of the employer. When food becomes cheaper, the employer will have command over a larger supply of food for his servants and can support more on the same amount of money. If this sentence is correctly interpreted, it shows that Smith believed that the maximum extent of the revenue Wages-Fund was rigid. This is, however, the only statement which I found in the Wealth of Nations which hints at rigidity at all. He

* Smith, Adam, The Wealth of Nations, 1793, Vol.I, p.89
** Ibid, 1793, Vol.I, p.186

himself later destroys whatever element of rigidity there is in this sentence by saying that in years of scarcity employers are "disposed to diminish rather than to increase the number (of servants) which they already have".*

The Wages-Fund theory is hinted at several times but it is not developed fully. Smith speaks of "the funds destined for the payment of wages" but he does not mention whether the funds are elastic or not.** Sometimes he speaks of these funds as the whole of capital and again as a part of capital. Capital is at times considered as a fund of money and again as a fund of commodities.

Adam Smith's theory of wages is rather inconsistent. The germs of three separate wage theories are to be found in it. He seems to hold one theory under one set of conditions; and another, under another. He does not make the relationships between these various ideas very clear. In addition Smith does not follow out the Wages-Fund theory consistently. He makes one statement, and then contradicts it all within the space of a few pages. To the Wages-Fund theory, Smith contributed the idea of a "fund destined for the payment of wages" but he himself was not consistent as to the composition of this fund.

* Smith, Adam; The Wealth of Nations, 1814, Vol.I, p.136
** Ibid, 1814, Vol.I, p.112

In general he believed that wages are paid from a part of capital stock and that the Wages-Fund is variable because laborers do not necessarily receive all that they can get.

Malthus, Say and Sismondi were the immediate followers of Adam Smith. They adopted his ideas with a few minor modifications. Malthus (1766-1834) wrote An Essay on the Principle of Population which was published in 1798, and was later extended in scope by the author. Malthus, as many other people of his day, was worried about the very rapid increase in the population which was taking place at this time. He feared that agriculture could not keep pace with the population, -- his fears were further roused by the bad crops of the period. Malthus believed that there was a fund appropriated to the maintenance of laborers.* He conceived of this fund as consisting mainly of food. Wages depend on the number of laborers in proportion to the amount of subsistence. He says, "The funds apportioned to the maintenance of labour would be the aggregate quantity of food possessed by the owners of land beyond their own consumption. When demands on the fund are great and numerous, it would naturally be divided into very small shares".**

* Malthus, Thomas Robert, Essay on Population, Vol.II, p.20
** Ibid, Vol.II, p.20

The maximum amount of the funds[15] hinted at but Malthus does not maintain that the amount the laborers can get at any one time is rigid. Wages can only rise when population, due to some check, does not increase as fast as capital does, or decreases while the capital remains stationary. Malthus was rather pessimistic as to the probability of a rise in wages; he believed that wages are generally low because of the tendency of the population to increase faster than capital. When wages do rise, it is usually because the population has decreased.

Malthus criticized Smith for saying that total wages increase with every increase in the stock or revenue of society.* But Adam Smith did not say that wages would increase to this extent, he said that they could. Smith's statements, to be sure are rather vague in discussing the Wages-Fund. If Smith had said what Malthus attributes to him, he would have been the first economist to hold a complete Wages-Fund theory.

Since wealth can be increased without increasing the supply of subsistence, as Malthus believed, he felt justified in saying that "the fund for the maintenance of labour does not necessarily increase with the increase of wealth, and very rarely increases in proportion to it".** Malthus'

* Malthus, Thomas Robert, Essay on Population, Vol.II, p.126-9
** Ibid, Vol.II, p.129

belief that the population would always tend to increase faster than the means of subsistence led him to emphasize the grim side of the Wages-Fund doctrine, -- the tendency of this fund is to be never quite adequate for the needs of the laborers, and therefore wages would tend to be as low as possible. Malthus' contribution to the Wages-Fund doctrine is this criticism of Smith and a more pessimistic view of wages. Malthus really gave more precise expression to what Adam Smith had already said as to the extent of the Wages-Fund. In general Malthus gives a much less detailed account of his views on this fund and its composition than Smith had; he took Smith's theory, for the most part, as an accepted fact.

The necessary advances out of capital to labor or wages, which Smith was concerned with are called "productive capital" by Say.* This category of capital consists of tools, raw material and subsistence for the laborers. The price of labor is regulated by the law of supply and demand. Since, however, it is everywhere true that population increases in proportion to the supply of subsistence, necessary subsistence is the standard of wages for the lower classes of labor and their wages rarely rise above this level. The influence of Malthus' Essay on

* Say, Jean Baptiste, Treatise on Political Economy, Vol.I, p.16

Population can be seen in these statements of Say. He does modify these statements more than Malthus did in the first editions of his work. Say maintained that habit had a great influence on what was the level of minimum subsistence, -- this level varies in different countries and at different times within the same country.* He says, "The abundance of capital and land compared with the number of workmen raises the rate of wages".** Say made no new contribution to the development of the Wages-Fund theory; he maintained a minimum of subsistence theory but he gave more definite emphasis to the effect habit had on the minimum of subsistence than Adam Smith and Malthus had given.

Sismondi believed that all capital was resolvable ultimately into food.*** He differentiates between fixed and circulating capital. Fixed capital is past work which has been stored up and is of such a sort that it aids the efforts of later work.**** Circulating capital is work done which is given in exchange to laborers for the work they have done. Wages depend on the supply of laborers and the extent of the circulating capital. When wages determined in this manner are not

* Say, Jean Baptiste, Treatise on Political Economy, Vol.II,p.80
** Say, Jean Baptiste, Catechism of Political Economy, p.43
*** Sismondi, J. C. L., Nouveaux Principes d'Economie Politique, Vol.I, p.51
**** Sismondi, J. C. L., De la Richesse Commerciale, Vol.I,p.39

sufficient to support the laborer and his family, the employer should be forced to pay a wage which is at least equal to the minimum of subsistence. Sismondi had visited England shortly before he made this last statement in the Nouveaux Principes d'Economie Politique. After he had seen the Poor Laws in operation and their effect, he came to the conclusion that there was a necessary minimum wage which should be paid so that the workers would not be forced to rely on charity. Instead of allowing the poor rates to make up any deficiencies in wages, he believed that the employer should assume this responsibility since labor was the ultimate source of all wealth in general and the employer's in particular.

The immediate followers of Adam Smith made no new contribution to the development of the Wages-Fund idea. In fact, none of them seem to have realized the full significance of what Adam Smith had had to say on this subject. The second period of the history of this theory begins, in my opinion, with Ricardo.

Ricardo (1772-1823) was very strongly influenced by Smith, -- so much so that he assumed as a matter of course that the wages of common unskilled laborers were paid out of capital. Capital according to him is "that part of the wealth of a country which is employed in

production, and consists of food, clothing, raw materials, machinery, etc., necessary to give effect to labour".* When wages rise, it is generally because the increase of capital has given rise to a new demand for labor and this causes an increased production of commodities. In this statement Ricardo hints that an increase in capital constitutes a demand for labor. Wages are really determined by the proportion between the supply and demand for necessaries and the supply and demand for labor.** This is a definite hint that there is a definite Wages-Fund which is always used to its fullest extent.

The rate at which capital accumulates varies at different stages in the economic development of a country but it always depends on the productive powers.***of labor. The productivity of labor does not necessarily affect the rate of wages at the moment. This idea is clearly expressed in one of Ricardo's letters.

> "Wages do not depend upon the quantity of a commodity which a day's labour will produce, and I cannot help thinking you quite wrong when you say that the natural consequence of the facility of production being so increased that

* Ricardo, David, On Principles of Political Economy and Taxation, 1819, p.69
** Ibid, 1819, p.186
*** Ibid, 1819, p.72

a day's labour will produce 4 measures of corn, cloth and cotton, will be that 4 measures of corn, cloth and cotton will be worth only the price of a day's labour instead of 2. It appears to me that if, instead of 4, 10 measures could be produced by a day's labour, no rise would take place in wages, no greater portion of corn, cloth or cotton would be given to the labourer, unless a portion of the increased produce were employed as capital and then the rise in wages would be in proportion to the new demand for labour and not at all in proportion to the increase in the quantities produced. This increase would be exclusively used by the owner of stock and, if he consumed in his family the whole increased produce, without augmenting his capital, wages would remain stationary, and not be in any way affected by the increased facility of production."*

Ricardo here gives another hint that capital itself constitutes a demand for labor.

The number of laborers do not rise and fall as fast as the funds for their maintenance. When these funds change in extent there is a considerable period before there is a corresponding change in the number of laborers.**

* Ricardo, David, Letters of David Ricardo to Thomas Robert Malthus, p.97

** Ricardo, David, On the Principles of Population and Taxation, 1819, p.190

This accounts for very low and very high wages. Population, however, tends to increase faster than capital and therefore wages tend to a minimum of subsistence.

Ricardo distinguishes between the "natural" and the "market" rate of wages. The former is that price without which the laborers could not subsist or perpetuate their race without increase or diminution.* This price depends on the price of food, necessaries and conveniences for the support of the laborer and his family but this price is not fixed and constant. The well-being of the laborer is determined not by his money wages, but by the amount of food, necessaries and conveniences, essential through custom, which his money will purchase.** If there is a scarcity of some article commonly used by laborers their money wages should not rise. The price of the scarce commodity will rise, but if wages rise too, competition for that particular article will be increased and its price will go even higher. The market price of labor is determined by the factors of supply and demand.

Wages have a tendency to conform to their natural rate, but in an advancing society the market rate may be above it for an indefinite period. The increases in capital create a demand for labor which in turn stimulate

* Ricardo, David, On Principles of Political Economy and Taxation, 1819, p.67

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an increase in population. If the value and quantity of capital both increase, the natural price of labor will rise, that is there will be a rise in the standard of living. If only the quantity of capital has risen, the natural price will remain the same. In either case the market price will rise. Money wages are subject to a rise and fall from two causes: the supply and demand for laborers and the price of commodities on which the wages of labor are expended. Here Ricardo is talking about the factors which determine the market rate of wages expressly in terms of money. As capital increases in proportion to the laboring population, the market rate of real wages will increase.

Bad harvests result in raising the price of food.* The increased price of food is the mechanism which makes the demand for food conform to the supply. Ricardo believed that it was unwise to raise wages in such circumstances because the result would only be to raise prices still further. Ricardo believed that the fund for the maintenance of labor was mainly composed of and limited by the amount of food produced in a given period. It is inevitable that if there is a bad harvest, real wages will fall provided the population remains stationary. If the price of food rises due to a tax upon it, the

* Ricardo, David, On the Principles of Political Economy, 1819, p.185

the worker's wage will rise by an amount to equal the tax; or else, since the supply will be in excess of the demand if wages do not rise, the price of the food including the tax will fall to the place where the supply will equal the demand. Whether the price of food rises due to a depreciated currency or a tax, the fund for the maintenance of labor will equal the destined supply of food and it will be distributed among the workers despite the high price. He believed that "neither a tax on raw produce or a fall in the value of money, though each will raise the price, will necessarily interfere with the quantity of raw produce or with the people who are able and willing to purchase and consume".* These statements of Ricardo seem adequate grounds to attribute the completely developed Wages-Fund theory to him. This economist believed that wages were paid from a part of capital, that the rate of wages was determined by the supply and demand for necessaries and the supply and demand for labor, and that finally if the population remained stationary, average real wages varied with the portion of capital destined for their maintenance, -- that is the funds were more or less rigidly determined.

It has been the general custom to attribute the Wages-Fund theory to Nassau William Senior. Haney says that "Senior probably called into being the wage fund

* Ricardo, David, On the Principles of Political Economy, 1819, p.189

doctrine which lies concealed in the writings of Smith and Ricardo".* Senior contributed no new element to the theory and, if he had followed his first statements to a logical conclusion, might have changed the prevailing idea of capital and of the Wages-Fund. Senior did not name the theory either as it has been said. John Stuart Mill was the first to use the term "Wages-Fund". Later Haney denies this statement and says that James Mill was the first to make a hard and fast statement of the doctrine. Wood also attributes the earliest statement of the doctrine to James Mill.** There is much more foundation for Mr. Taussig's belief that Ricardo was the first to state the Wages-Fund theory, and that he did so in as unqualified terms as his successors to whom the theory has been attributed.*** Ricardo did not state the theory in as precise form as James Mill later did but the latter makes no new contribution to Ricardo's ideas. Haney refers to Mr. Taussig's chapter on Ricardo in Wages and Capital in which, he says, Ricardo's Wages-Fund is set forth as being elastic. But Mr. Taussig concludes in this chapter that Ricardo had a rigid Wages-Fund theory. Ricardo-s statement scattered through various sections of On the Principles of Political Economy and Taxation when taken together contain

* Haney, Lewis H., The History of Economic Thought, p. 267
** Wood, Stuart, A Critique of Wage Theories, p. 435
*** Taussig, Frank W., Wages and Capital, p. 178

all the elements of the Wages-Fund theory in its complete development. The objection to attributing this doctrine to Ricardo lies in this very fact that the theory is never completely expressed in any one section of the book and that the composition of what he terms capital varies from a sum of different commodities to food alone. However, these same objections, or similar ones, can be made to the claims of other economists to whom the theory has been attributed.

Ricardo's claims to the first full expression of this doctrine are further substantiated by the Conversations of Mrs. Marcet. Her book appeared after Ricardo had expressed his main ideas in the Essay on the Influence of a Low Price of Corn (1815) but before he had published On the Principles of Political Economy and Taxation. The essentials of his wage theory had been evolving for some time and were the subject of discussion before The Principles of Political Economy appeared. The 1817 edition of Mrs. Marcet's Conversations gives a very clear statement of her belief in the rigidity of the Wages-Fund. Mrs. Marcet is not given credit for any original thought in histories of economic theory; she is supposed to have merely written down the prevailing economic ideas of her day. If Ricardo did not give the first full

expression to the Wages-Fund doctrine then Mrs. Marcet must be considered to be the economist who did. Since Mrs. Marcet's book does not show any signs of original thought, it seems far more probable that she only recorded what Ricardo had said. It cannot be proved, however, that she ever read Ricardo's Essay on the Influence of a Low Price of Corn. At any rate, Mrs. Marcet's Conversations show that the rigid Wages-Fund was the popular wage theory of her day.

In 1816 Mrs. Jane Marcet published Conversations a very elementary book on economics in which the Wages-Fund is rigid. She excludes from her definition of circulating capital, raw materials and tools. Circulating capital is the fund from which the wages of labor are paid, that is the wages of productive labor.* In this definition she seems to follow Malthus and the practice of Ricardo rather than Adam Smith. She believed that wages are limited by the minimum of subsistence on the one hand and the current rate of profits on the other. The rate of wages is determined by the proportion which capital (here she means circulating capital) bears to the laboring part of the population of the country, or the ratio fo subsistence to the number

* Marcet, Jane, Conversations, p. 85

of people to be maintained. Mrs. Marcet expresses the manner in which the rate of wages is determined in a mathematical formula: "The rate of wages varies directly as the quantity of capital and inversely as the number of labourers".* She elaborated this formula by saying, "When the number of labourers remains the same, the rate of wages will increase with the increase of capital, and lower with the diminution of it; and that if the amount of capital remains the same, the rate of wages will fall as the number of the labourers increases, and rise as the number of labourers diminishes".** This is as clear, concise and arbitrary a statement of the rigidity of the Wages-Fund as will be found. She does not only specify that the maximum limit is rigid, but the amounts the laborers do receive are all that they can get and are directly proportional to increases in the amount of capital.

The rigidity of the Wages-Fund can be inferred from her statement that no matter how much work a man may wish to undertake, or how much he may wish to, his activities are limited by the funds he possesses for the payment of labor. Evidently each separate employer has a definite Wages-Fund whose limits are rigid unless his total wealth increases.*** This example seems to have been taken

* Marcet, Jane, Conversations, p.109
** Ibid, p. 109
*** Ibid, p. 104

from the Wealth of Nations. Mrs. Marcet does not hint, as Smith had done, that this fund is not always used to its fullest extent. Whether she thought this fund was completely exhausted to pay wages is a question. She does, however, give this example an atmosphere of rigidity which is entirely absent from this same example as Adam Smith had expressed it.

Mr. Taussig has said that the thought of Mrs. Marcet shows mainly the influence of Adam Smith and Malthus. Her theory of wages, however, seems to show the influence of Ricardo as well as that of Smith. Mrs. Marcet follows Adam Smith to the same extent that Ricardo does, except that she gives more definite exphasis to the influence of habit on the minimum of subsistence. Ricardo's main contribution to the Wages-Fund doctrine, the element of rigidity, is stated in more arbitrary form by Mrs. Marcet than even by Ricardo himself.

Among those economists who followed the doctrines of Ricardo are James Mill, MacCulloch, and Torrens. James Mill defined wages as the share of the commodites which are the portion of labor out of the total of commodities. The laborer's share is the result of bargain between the laborer and the employer and is determined by competition. He defined capital as "commodites, not money, but the implements and stock".* Again he says that the common

* Mill, James, Elements of Political Economy, p. 42

idea is that food and other articles consumed by laborers, the raw materials on which they operate, and the instruments of all sorts which are employed in aiding their labors should be denominated capital. This common definition includes wages; but his does not. James Mill said that this prevalent idea of capital arose from the fact that wages are considered a diversion of part of the funds which constitute capital in his sense of the term "capital". Since wages receive the same returns as if the funds had been used as capital, wages are spoken of under the head of capital.

After James Mill had carefully stated that wages are not paid out of capital, he slipped back into the use of the term "capital" in the ordinary sense. If new funds are added to the former funds for wages, and there is no increase in the number of laborers, wages will rise to the extent of this addition. This is certainly a rigid Wages-Fund. If the population increases without any increase of capital, wages will fall. On the other hand, if the capital remains the same and the population decreases, real wages will rise.* Mill evidently believed that a greater portion of the existing capital could not be transferred to the fund ~~for the~~

* Mill, Janes, Elements of Political Economy, p.27

for the payment of wages. Wages could not rise unless there was an increase in the total amount of capital. On the other hand, a portion of the Wages-Fund could not be used for some other purpose than to pay wages. These statements indicate that James Mill conceived that the Wages-Fund was rigid.

MacCulloch included wages in his definition of capital which he states "consists of all that portion of the produce of industry existing in it, which can be made directly available either to the support of human existence, or to the facilitating of production".* That portion of capital consisting of food, clothing and articles required for the use of the laborers is the fund out of which wages are wholly paid. Later he reduces capital to a standard of wheat. The amount of subsistence allotted to each laborer, or the rate of wages, "depends on the proportion which the whole capital bears to the whole amount of the laboring population".** This statement seems inconsistent with his definition of the fund destined for the payment of labor. At first he says wages depend on what portion of capital they can get for their subsistence; in this latter statement, wages depend on the whole quantity of capital. These

*MacCulloch, John Ramsay, An Essay on the Circumstances which Determine the Rate of Wages, p.112

** Ibid, p.113

two ideas may have been synonymous in his mind in that he may have thought that, as the total amount of capital increases, the amount of the Wages-Fund would increase too. "If the amount of capital is increased without a corresponding increase taking place in the population, a larger share of such capital will fall to each individual, or the rate of wages will be increased. And if, on the other hand, population is increasing faster than capital, a less share will be apportioned to each individual".* Here MacCulloch expresses the orthodox Wages-Fund theory, -- a rigid fund which is always used to its fullest extent. The vehemence of other statements which he makes indicates that he thought the Wages-Fund, consisting of food, was rigid at least for a season. In discussing trade unions, however, MacCulloch evidently believed that the Wages-Fund was not always used to its fullest extent. He says that when wages are unduly depressed and laborers are not getting as much as they possibly could, trade unions could effect a rise in wages.

Torrens, as the other followers of Adam Smith and Ricardo, assumes that wages are paid out of capital. Mr. Taussig says that Torrens conceived of capital as consisting of food. Torrens defines capital as "those

* MacCulloch, John Ramsay, An Essay on the Circumstances which Determine the Rate of Wages, p.113

things in which some portion of labour is bestowed and which are destined not for the immediate supply of our wants, but for the purpose of aiding us in obtaining other articles of utility".* In this definition, he includes raw materials, implements and food. The Wages-Fund is the total capital after that part has been deducted which consists of raw materials and implements used in production. The remainder is assigned to the payment of wages except so much as is needed to pay the current rate of interest on capital.

The ratio between labor and capital, according to Torrens, is not the only factor which regulates wages. As poorer and poorer lands are resorted to, there is a decrease in the rate of growth of capital, and population tends to remain at the same level. In such a case, money would probably be invested abroad because there would be a higher rate of profit there, but this would not increase the rate of wages at home. He believed that there was a maximum and a minimum limit to wages. Climate and custom determine the minimum; and the quality of the soil under cultivation, the skill with which labor is applied, and the degree of freedom of trade, the maximum.** Within these limits, wages depend on "The

* Torrens, Robert, On the Production of Wealth, p.4
** Torrens, Robert, On Wages and Combinations, p.13

proportion between the number of labourers to be maintained, and the quantity of those ingredients of capital which are destined for their maintenance".* Torrens distinguishes between real and money wages, -- the state of the real wages is the condition on which labor depends.

Every new accumulation of capital, if there is the same number of laborers, will assume the form of wages until the maximum is reached. He believed this to be true because of his belief that there was a fixed sum of materials and implements apportioned to each laborer. He would have been more consistent if, after he had divided capital into three funds: raw materials, interest and wages, he had believed the relation of these funds to each other had been variable. He never considered this possibility. The rigidity of the Wages-Fund is shown by the following statements:

> "But as a given number of hands can use only a given quantity of seeds, materials and machinery, these ingredients or component parts of capital cannot be increased, while the quantity of capital remains the same; and therefore it is only in the form of increased wages that the new accumulations of capital can appear".*

* Torrens, Robert, On Wages and Combinations, p.13
** Ibid, p.19

As inferior soils are resorted to, the maximum limit of wages gradually falls until it coincides with the minimum. Once this stage is reached, capital can accumulate indefinitely without affecting the rate of wages in the least. When efficient new machinery is introduced, the increase in capital due to greater profits will create a demand for labor just equal to the amount thrown out of employment by the introduction of that machinery. Due to more efficient machinery the Wages-Fund will rise and so will the average rate of wages. Torrens believed in a Wages-Fund which had certain limits but which was rigid within those limits. In discussing the effect trade unions have on wages, Torrens says that they can increase wages up to the maximum point. Here his theory is no longer rigid within the limits he had previously assigned.

Senior's discussion of the Wages-Fund marks an advance over that of previous economists in that he presents his arguments in a more orderly fashion, but even he is guilty of digression from the question he is investigating. The clarity and continuity of his thought are not helped by these digressions, and he finally ends his discussion without having progressed far from the original statement of his problem.

In reference to wages, Senior distinguishes, as other economists have before him, between two kinds: real and money wages. Real wages are the quantity and quality of commodities a laborer is able to command with his money wages: the former type of wage is the one he concerns himself with. The proximate causes which decide the portion of these commodities going to labor during a year is the "extent of the fund for the maintenance of labor compared with the number of labourers"* to be maintained. This fund depends on two things: the productiveness of labor in the direct or indirect production of the commodities used by the laborer, and the number of persons directly or indirectly employed in the production of things for the use of the laborer compared with the whole number of laboring families. He never goes any further into his problem that this statement which is good in itself. According to Senior if the productiveness of labor is given, the extent of the Wages-Fund will depend on the proportion in which the produce of labor is shared between the capitalist and the laboring population. Where labor is productive and the number of laborers in proportion to the capital is small, the wages will be high. By this statement one perceives that Senior at the moment considers wages as paid out of capital. Both wages and capital were subject to a maximum and a minimum. The wage

* Senior, Nassau W., Political Economy, p.153

minimum is based on the amount of commodities a laborer needs for bare subsistence but the maximum was not defined but was probably related to a minimum return on capital. Both profits and wages have a tendency to bring about their own decrease automatically after an increase, -- too great a supply after an increase causes a diminution. The causes which raise wages often raise the rate of profits too, -- here Senior differs from Ricardo.

Senior distinguishes between the rate of labor and the price of labor. The former is less likely to be uniform because it is affected by any variations in the price of labor and in the amount of labor exerted. The Wages-Fund is not diminished as a result of a number of laborers being devoted to the production of commodities for the use of the proprietors of the natural agents of the country. Such laborers draw their wages not from the Wages-Fund proper but from an addition to that fund made by the extraordinary productiveness of the natural agents.* If the fund and the number of workmen remains unaltered a fall in the price of one trade must be balanced by a rise in another trade. This seems to indicate a fixed fund always used to its fullest extent, a rigidly determined fund. Again Senior says that no

* Senior, Nassau W., Three Lectures on Wages, p.18

cause can keep the wages of any one class of artificers above their proportion, but that a number of causes can keep them under the general level for an indefinite period.

Senior started out to find the factors which determine the Wages-Fund. He refuted several prevalent ideas but did not go any further than this. He shows that his theory is inconsistent with the idea that the rate or wages depends on the proportion which the number of laborers bears to the amount of capital in a country. According to his definition, "capital consists of articles of wealth the result of human exertion employed in the production or distribution of wealth".* The term "wealth" includes all those things, and only those things, which are transferable, limited in supply and are directly or indirectly productive of pleasure or pain.** There is no definition of capital which does not include a great many things which the laboring classes do not use. Hence there could be increases in capital, in the production of commodities which labor does not use, which would not directly affect wages.

That wages depend on the proportion between the laborers and the revenue of the society of which they are

* Senior, Nassau W., Political Economy, p.60
** Ibid, p.60

members was another prevailing belief. Senior refutes this idea with arguments very similar to the ones he used to refute the notion that wages depend on capital; revenue includes a great many things a laborer does not use.

Senior started out to dissent from the current view of the Wages-Fund doctrine but ended by concurring with the general opinion. There were some economists who were more consistent in dissenting from the current view of this theory, but their opinion did not carry much weight and did not affect the further development of the doctrine under John Stuart Mill.

After the publication of Senior's Three Essays on Wages, Malthus changed some of his ideas as to the relation of wages and capital, which was to some extent a departure from the current belief. In the 1820 edition of Principles of Political Economy he said, "The principle of supply and demand is the permanent regulator of the price of labour as well as of commodities, not only temporarily but permanently; and the costs of production affect these prices only as they are the necessary condition of the permanent supply of labour or commodities".* The Essay on Population had had a definite influence on Ricardo's theory of

* Malthus, Thomas Robert, Principles of Political Economy, p.188

wages. Malthus now denies Ricardo's "natural" wage. The natural wage according to Malthus, is "that price which, in the actual circumstances of the society, is necessary to occasion an average supply of labourers sufficient to meet the average demand".* Population increases when there is an increased demand for labor "occasioned by, and proportioned to, the rate at which the whole value of the capital and revenue of the country increases annually".** There is nothing very rigid about this theory though capital does create a demand for labor. He does not deny in this edition that wages are paid from capital. In the 1836 edition of the Principles of Political Economy, Malthus agreed with Senior's premise that wages are not paid out of capital but out of a destined fund of commodities for the payment of wages.*** Once these commodities were turned over to the laborers, however, they became capital.

Richard Jones in 1831 questioned the scope of the Wages-Fund doctrine. He classified laborers into three classes: unhired laborers such as peasant proprietors and serfs, laborers paid out of revenue such as servants, and laborers hired by capitalists. Only

* Malthus, Thomas Robert, Principles of Political Economy, p.193
** Ibid, p.203
*** Taussig, Frank W., Wages and Capital, p.204-207

the last class of workers was paid out of capital, and this a small proportion of the total number of workers in the world. Jones thought the Wages-Fund theory was not broad enough in its scope to entitle it to the emphasis it was receiving.

Chalmers, whose Political Economy was published in 1832, differed from Jones in that he believed wages were paid out of capital. Chalmers believed that advances could be made to any extent without destroying profits, because ultimate wages are derived from the productivity of the workers. Here the later productivity theory of wages is hinted at.

Longfield dissents from the prevailing views to the extent of being the English forerunner of the productivity theory of wages. According to this economist the "wages of labour depend upon the rate of profit and the productiveness of the labour employed in the fabrication of those commodities in which the wages of labour are paid".* The wages of labour do not depend upon the wants of the laborers but primarily upon the value or the productivity of his labor.

* Longfield, Mountifort, Lectures on Political Economy, p. 215

John Stuart Mill (1806-1873) probably marks the culmination of the Wages-Fund theory. He too believed that wages were paid out of capital which he defined as "the accumulated stock of the produce of labour", or "saved wealth devoted to reproduction".* Circulating capital is that kind whose role in production is completed after a single use. "There is unfortunately no mode of expressing by one familiar term the aggregate of what may be called the wages-fund of a country; and as the wages of productive labour form nearly the whole of the fund, it is usual to overlook the smaller and less important part and to say that wages depend on population and capital".** Mill determines to use capital in this sense, -- that is elliptically, but it seems as though he forgot at times that he had determined so to use the term. The aggregate Wages-Fund is really a part of the circulating capital but does not itself embrace the whole of it.*** This fund in part consists of wages not paid out of capital but out of revenue, -- these are the wages of unproductive labor. Mill did not conceive of the Wages-Fund as consisting entirely of food. When the price of food falls, wages

* Mill, John Stuart, Principles of Political Economy, 1848, p.64
** Ibid, 1848, p.402
*** Ibid, 1848,p.401

do not necessarily fall in proportion to that of food because wages are not wholly spent on food.*

His theory of wages, like that of the Ricardian school was meant to apply only to common unskilled labor. Wages are principally regulated by the supply and demand for labor but custom has some effect on the rate of wages if only to a comparatively slight degree. "Wages then depend mainly upon the supply and demand of labour, or, as it is often expressed, on the proportion between population and capital".** An increase in wages could be affected only by a decreased number of laborers or an increase in the aggregate funds; a decrease, by an increased number of laborers or a decreased amount of capital.***

These statements of John Stuart Mill which have been quoted show the essentials of his theory. It can be seen that here there is really no new contribution. He does analyse the Wages-Fund and finds that a part of the circulating capital forms a part of the Wages-Fund and a second and smaller share of the fund is not paid out of capital at all. Other economists,

* Mill, John Stuart, The Letters of John Stuart Mill, Vol.I, p.155
** Mill, John Stuart, Principles of Political Economy, 1848, p.401
*** Ibid, 1848, p.402

including Smith and Ricardo, differentiated between productive and unproductive laborers but they did not usually include the remuneration of the unproductive laborers in the Wages-Fund. Mill believed that the Wages-Fund consisted of commodities but he is guilty of forgetting this and considering capital as a sum of money. Moveover this Wages-Fund is considered to be entirely in the hand of the employers who hire labor.

The rigidity of the Wages-Fund is not clearly expressed by Mill. Some of his statements would indicate that the fund was elastic; and others, that the fund was rigid. For instance, he says that the employer's intention determines whether wealth is to become capital, -- thus the amount of capital was not rigidly determined. This would seem to indicate that the Wages-Fund was not necessarily limited either. He hinted that it took time for the employer's intentions to have any effect on the proportion of capital to the total amount of wealth. This indicates that for short periods of time the Wages-Fund is in-elastic. This is in opposition to his belief that wealth could become capital at any given moment if the intention of the owner of the capital should change. Again he says that the rate of wages may expand and contract temporarily

with trade, but that the rate of wages could not be permanently altered unless there was a change in the proportion of capital to labor.* Here the Wages-Fund during short periods of time is a variable. Mill, however, seems to uphold the idea of a rigid fund in other statements. For instance he says, "Since therefore, the rate of wages which results from competition distributes the whole Wages-Fund among the labouring population, if law or opinion succeeds in fixing wages above this rate, some labourers will be kept out of employment, -- the latter must be provided for by a forced increase of the Wages-Fund -- a compulsory saving".** The impression his followers received was that he held a rigid Wages-Fund theory.

John Stuart Mill's restatement of this doctrine influenced men such as Fawcett and Perry. These later exponents concerned themselves with a money Wages-Fund. The younger Mill himself, when he defines capital, considers it as composed of commodities, -- mainly food. In discussing the theory, he concerns himself with a money Wages-Fund at times which he conceived to be in the hands of the employers.

* Mill, John Stuart, Principles of Political Economy, 1848, p.453
** Ibid, 1848, p.195

Because John Stuart Mill did not keep in mind his original definition the idea of the composition of the Wages-Fund was changed in the future. Due to his inaccuracies, the refutations of this doctrine in the third period of its history were directed to a money Wages-Fund in the hands of the employer and not to a real Wages-Fund.

Henry Fawcett was one of the followers of John Stuart Mill. His theory is stated thus: "Wages ultimately depend upon the amount of capital and upon the number of laborers, yet the wages which, at any time, are paid in a certain trade are to a considerable extent influenced by the relative advantage possessed by the employers and employees for carrying on the bargaining by which wages are adjusted.*" This seems to indicate that laborers do not always get all the wages they could get from the individual employer but it throws no light on his idea of the rigidity of the Wages-Fund as a whole. Two years later in The Economic Position of the British Labourer, he says that "Wages are regulated by fixed and well ascertained laws and that those laws are as certain in their operation as those which control physical nature."** This certainly indicates a very rigid Wages-Fund. Fawcett

* Faucett, Henry, Labour and Wages, p.20
** Longe, Francis D., A Refutation of the Wage Fund Theory, p.14

does not even pretend to use the term "capital" elliptically as John Stuart Mill did. In connection with his discussion of trade unions little is said about the Wages-Fund. It was evident that trade unions could raise wages, -- especially of the worst paid laborers, and in fact had done so. Fawcett thought that such a result was due to the fact that competition did not act instantaneously; if competition could make its effect felt immediately, trade unions could not affect the rate of wages.* This economist did not favor trade unions, but he did admit that in some cases they had been successful in raising wages without lowering the wages of others who were not concerned in the union.

There is little difference in the statement of the Wages-Fund theory as it is expressed by Ricardo and those statements of it which are to be found in the writings of his followers. Men such as James Mill and Senior stated the theory more precisely to be sure, and emphasized the rigidity of the Wages-Fund more than he did. The men of this period, including John Stuart Mill, found it difficult, in general, to keep to any one definition of capital. At times, as in the writings of James Mill and Senior, some of these economists come very near to denying that wages are paid out of capital though they have the notion of a Wages-Fund apart from capital. As to the rigidity of the theory

* Fawcett, Henry, Labour and Wages, p.19

during this period, there is a great deal of question. Mr. Taussig is quite right in saying that the idea of the Wages-Fund is rarely definitely expressed even as late as John Stuart Mill. In this thesis the idea of rigidity has been emphasized and appears to have been more prominent in the economic treatises of the time than it really was. This is probably a reaction from Mr. Taussig's understatement of the notion of rigidity among these writers.

In general in the sections on wages in the economic books of this period, the prevailing idea is a rigid Wages-Fund though statements can be found to contradict this assertion in almost every one of these sections. When trade unions are being discussed in these economic treatises, the Wages-Fund does not appear to be as rigid as it was said to be in the sections on wages. All of the economists of the period did not agree that the Wages-Fund is necessarily distributed among all the laborers by competition. In theory the Wages-Fund was rigid but economists recognized that the theory broke down in practice and in the face of historical facts. Therefore they found it necessary to qualify the theory in discussing the effect trade unions have on raising the rate of wages. John Stuart Mill gave a new turn to the Wages-Fund theory by his unconscious emphasis on a money Wages-Fund.

The attitude of the economists of these two periods to current economic problems was definitely influenced by the theory of wages which they held. Malthus disapproved of the Poor Law not only because of its moral effect on the poor but also because of its tendency to decrease the wages of productive laborers.* According to him the Poor Law should be gradually abolished. Ricardo too was in favor of the gradual abolition of these laws.** The Poor Law was in direct opposition to his theory that wages should be determined by free competition. This law was detrimental to the condition of both the rich and the poor, and ~~takes~~ took up an increasing portion of the national revenue. From this one may infer that Ricardo considers the poor rates, in part at least, were a deduction from the Wages-Fund. In one of his letters, he said that it was better for the "labouring classes to receive the recompense of their labour in the shape of wages rather than bounty".*** Thus the Poor Law was considered to be an infringement on the rights of the laboring population.

The subject of taxes on food was also given consideration by the economists of these two periods. Smith disapproved of the bounty on corn which had been established under William III. Such a bounty raises

* Malthus, Thomas Robert, Essay on Population, Vl.II, p.48
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*** Ricardo, David, Letters to Hutches Trower and others, p.28

the price of corn in the home market. With the Corn Law of 1815, a great deal more discussion was evoked. Malthus favored some restrictions on the importation of corn. If an international free corn trade existed, he would have favored the complete repeal of the law. As conditions were, a free corn trade would only add to the unemployment and lower wages. Say believed that England was justified in passing this law because it would not be safe for England to depend on a foreign supply of corn.* Ricardo opposed the Corn Law because, as he believed, it would raise the price of labor and commodities in general. If wages rise, profits will fall and further industrial undertakings will be discouraged. Mrs. Marcet, Torrens and Chalmers were all in favor of a free corn trade. Torrens thought that a free corn trade would be good for trade in general and that, at least temporarily, it would raise the condition of the laborers by making corn cheaper.

The trade unions and their relation to the prevailing wage theory probably were discussed to a greater extent than any other current economic question. On this question Malthus concluded that labor unions were "not only illegal but irrational and ineffective".** He

* Say, Jean Baptiste, Treatise on Political Economy, Vol.I p.198

** Malthus, Thomas Robert, Essay on Population, Vol.II,p.65

does not believe that the ineffectiveness of the unions is due to the rigidity of the Wages-Fund. After 1824, MacCulloch said a trade union could only raise wages if they were below the general level, -- trade unions only hasten the coming of an inevitable rise in the rate of wages. Torrens, though at times he upheld a rigid Wages-Fund theory, saw no hard and fast barriers to the efforts of laborers to better their lot. Chalmers placed little reliance on the ability of the unions to raise wages but he admitted that they could at times. Trade unions were generally condemned by Senior who thought that, if a rise took place in the wages of one group of laborers, another group would suffer a loss. The younger Mill approved of unions and believed that they were quite capable of raising wages. Strikes, according to Fawcett are always ultimately unsuccessful unless they are for the purpose of raising wages to the normal rate; wages would eventually rise to this level anyway. Unions were condemned by the theorists while they were banned by law. When the Combination Act was repealed, they were still generally condemned but not to quite the same extent as formerly. Unions gradually proved that they could raise wages without harming other groups of laborers. As unions came to have a measure of success, the theoretical side of the question had to be altered or qualified to

include the facts of history. The attitude of these economists, and of people in general, was hostile to the trade unions; this hostility was due not only to their dislike of the methods of the unions but also to their belief in the Wages-Fund theory. None of these economists approve of the trade unions in theory but they grudgingly admit that at times the unions have, and can, affect the rate of wages. They never attributed more power to the unions than they had proved themselves to have in the past.

Adam Smith favored a restricted free trade policy as long as it was compatible with the interests of the consumers, and no further. Ricardo and Mrs.Marcet favored free trade. This change was due to England's position in trade; she was in a more advantageous position than any other foreign nation to compete in foreign markets. Free trade, Ricardo thought, would also settle the problem of the food supply. England could get cheaper supplies abroad in return for her manufactured goods and services. John Stuart Mill was an advocate of a restricted Laissez-faire system. "Protection averts capital from the most productive channels and thus decreases the Wages-Fund".* The only case where he favored protection was that of new industries. Within the country he favored a restricted

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laissez-faire; He approved of the legislation as to the minimum hours of labor which was being passed. In the question of government interference and laissez-faire, the influence of the economic background is again clearly seen. The attitude of the theorists was influenced by historical facts.

Chapter III

As the Industrial Revolution progressed, the misery of the laboring population, which characterized the period of transition from the domestic system to the factory system, was lessened. More important to the welfare of the workers, however, was the reaction which had taken place against a complete system of laissez-faire; public opinion had demanded better working conditions in the factories. The government took the attitude that it had the right to interfere to regulate the conditions of work for the best welfare of its citizens. During the nineteenth century, especially the latter half, an increasing amount of legislation was enacted on behalf of the workers.

As the size of the business enterprise increased, unions became an increasing factor in the industrial system. The unions demonstrated the fact that a combination of workers can act to raise wages where the individual worker could not. In addition wages were raised without detriment to the wages of the other workers. As the industrial organization developed, it became increasingly evident that there was no rigid Wages-Fund in the hands of the employers. This was clearly seen with respect to a money Wages-Fund. The investing class had become larger and some capitalists

were not employers of labor. The employer was free to change the proportion in which he spent his money in the purchase of the various factors of production and he could borrow additional sums. The economists of the latter half of the nineteenth century were undoubtedly influenced by these conditions; their attitude toward the problem of wages was different from that held by the earlier economists. In fact they went to the other extreme and usually maintained there was no truth in the Wages-Fund theory at all.

The first economist to express this change of thought was Francis Longe. In the Refutation of the Wages-Fund Theory (1866) Longe denies the truth of that Wages-Fund theory which had been the prevailing doctrine during the preceding part of the century. The existence of a Wages-Fund is denied absolutely. His three fundamental objections to the Wages-Fund theory, as they are summarized by Mr. Taussig, are: there is no definite fund distinct from the possessions of the community, laborers do not constitute a body among whom the aggregate fund could be distributed by competition, and this wage theory involves an erroneous notion of the supply and demand principle.*

* Taussig, Frank W., Wages and Capital, p.241-2

Wages are paid out of wealth or capital, to be sure, but the wealth or capital which is applicable to the payment of wages is neither a destined nor a"definite fund distinct from the general wealth" of a country at any time.* If there were a Wages-Fund, it would represent what the laborers could get but not what they would get. Wages are paid out of wealth in general; there are no portions of wealth which are labelled "capital" and "non-capital".** The nature of the wealth to be produced and the quantity of labor and capital to be employed in production is governed by the demands of the consumers as well as by the landowners, capitalists, lenders, and other wealth-owning members of the community. Since the laborers themselves are consumers they help determine the direction which production will take.

The conception of a natural wage such as earlier economists had had, Longe considers to be still true, but he objects to their conception of a market rate of wages which is determined by the supply and demand for labor. "The normal relation between the supply of labour and the demand for labour is directly the reverse of that between a supply of goods and a demand for goods".***

* Longe, Francis Davy, A Refutation of the Wages-Fund Theory, p.1
** Ibid, p.46
*** Ibid, p.38

No more goods are produced than can be sold at cost price as a minimum, but the supply of labor is not so regulated and can be in excess of the demand. In only one case is the average rate of wages determined by the supply and demand of labor and that is where "the whole or potential supply of labour is wanted by the demand at a higher than its sufficient, or natural, or customary rate".* Ordinarily the tendency of the population to increase keeps the supply of workers so large that the supply and demand for labor does not affect the determination of the rate of wages. Under normal conditions, competition is on the side of the laborers and such a situation will not, and never will have, the effect of bringing the whole supply of labor into employment, however low competition may reduce the price. The market rate of wages which was essential to the Wages-Fund theory is based on an erroneous application of the law of supply and demand. Furthermore a state of free competition does not exist among the workers. The laborers of one trade compete against those of another, -- here Longe hints at Cairnes' idea of "non-competing groups".

Longe considers in some detail the absurdities to which the Wages-Fund theory would lead. If the Wages-Fund were really true, employers would always pay the

* Longe, Francis Davy, A Refutation of the Wages-Fund Theory, p.66

laborers the lowest wage which they would accept. In the interests of the employers themselves, wages should not be reduced below a certain point even though it would enable the employer to hire more laborers. Low wages will not only cause a decrease in the quality of the work done but it will also cause a deterioration and degradation of the working classes. It is to the interest of the employer as well as to that of society that at least a sufficient wage should be paid. Longe placed too much emphasis on the foresight of employers as a class. He forgot that the interest of an individual employer may differ from that of employers as a class. That is, while it may be to the advantage of the group of employers that the quality of the laboring class should be maintained, the individual employer will try to hire labor as cheaply as possible. The individual is discouraged from paying higher wages to improve the quality of labor in the future because he is not assured of receiving the benefits of his foresight.

According to the Wages-Fund principle, it did not make any difference how long men worked, whether they worked four hours a day or twelve, the total Wages-Fund would be distributed among all the laborers in any case. Longe believed that a true science of Political Economy would teach workers that the longer they worked, and the

better, the more the employers could afford to pay them. The notion that the entire Wages-Fund would be distributed among all the laborers who sought work was fallacious and lead to either of two absurdities: the employer would hire more laborers than they needed and would produce more than they could dispose of, or else the same amount of goods would be produced by a greater number of laborers than was necessary.

In contradiction to the older theorists, is Longe's contention that combinations of laborers are needed in the interest of the employer as well as of the laborer in proportion as the competition of the workers increases. Trade unions protect the quality of the future laboring classes. The main object of the unions should be to equalize wages and not to raise those of a particular group above the general level. At the same time as Longe speaks of what trade unions can accomplish for their members, he warns these organizations that a prolonged strike will only hurt their interests. In making this statement, Longe speaks of the Wages-Fund as though there were one actually in existence. He says,

"A true Political Science would teach laborers that, while they have a perfect right to get the whole of the wage-fund, at any time accessible to them, by combining in withholding their labor so

> as to induce their employers to give them all that they can afford, they should ever bear in mind that the natural effect of a prolonged strike is to reduce that very wage-fund by driving away capital from their trade, and sending the consumers to another market".*

Here Longe's statement is very similar to some made in the preceding period when the Wages-Fund was upheld.

The theory of wages advanced by Longe consisted really of two, each of which applied to a particular set of conditions. In exceptional cases where the demand for labor exceeded the supply, the rate of wages was determined by the supply and demand for labor. Ordinarily, due to the tendency of the population to increase faster than subsistence, "the price of labor is determined by the wants of the laborer or the 'cost' price".** A "cost" price or a sufficient price is the rate of wages at which the laborer gives the highest proportionate return in the shape of work or product. Contracts between the laborers and the employers are the immediate cause by which wages are determined. These contracts are influenced by a "variety of circumstances, conditions and considerations, affecting the power or willingness of either party to grant or to accept particular terms."***

* Longe, Francis Davy, A Refutation of the Wages-Fund Theory, p.64
** Ibid, p.69
*** Ibid, p.12-13

The refutation of the Wages-Fund theory as it was put forth by Longe is itself open to objection. In the first place he confines his discussion to money wages and refutes a Wages-Fund consisting of money. The Wages-Fund was usually considered by its adherents to consist of those things which a laborer believed necessary for his subsistence. At times, as it has been pointed out, the older economists themselves, though they started out to discuss a Wages-Fund of commodities, reverted to a discussion of a money fund. Nevertheless Longe is discussing a fund whose composition differs from that of the doctrine he is refuting.

The attack on the Wages-Fund theory was carried still further by William Thomas Thornton in his book On Labour: Its Wrongful Claims and Rightful Dues, Its Actual Present and Its Possible Future, (1869). His refutation of the Wages Fund theory commences with an attack on the law of supply and demand in relation to prices in general. John Stuart Mill had defined supply as "the quantity offered for sale" and demand as "the quantity demanded"; competition equalizes the supply and demand.* Thornton defines supply as "the quantity, and neither more nor less than the quantity, that is offered for sale, whether the whole of the quantity be or not be actually present in the market".** Supply

* Mill, John Stuart, Principles of Political Economy, 1897, Vol.I, p.548
** Thornton, William Thomas, On Labour, p.45

is the quantity which is offered for some specified price, and may be even in excess of the existing supply. Demand is the quantity which customers are ready to buy at a specified price, and not at some price or other. The prevailing idea had been that the supply was offered unreservedly for sale. Thornton objects to this idea as rarely ever being the true situation. But Mill himself did not believe that the supply was offered unreservedly; he says that supply and demand may be equalized by lowering the price or withdrawing a part of the supply. That is it is possible for the seller to offer only a part of what he has to sell. Thornton thought that even if goods were offered unreservedly for sale, and supply exceeded demand, the whole supply will not be sold unless the price be lowered to a point where supply and demand will be equalized. In this case, however, it does not follow that the price will fall only to the point at which supply and demand are equalized, -- it may fall even lower. Even if supply and demand do determine the final price they are of little significance because most of the goods may be disposed of at prices which differ from the final price. Since this is true, according to Thornton, he asks how any one can believe that the "equation of supply and demand determines prices, if goods are almost always sold at prices at which supply and demand are unequal".*

* Thornton, William Thomas, On Labour, p.54

Competition should take the place of the law of supply and demand in determining prices.* Thornton had cited examples where supply and demand remain the same but the price had varied. The variation was contrary to the law of supply and demand so this economist said that competition was the cause and determined prices. As long as competition remained the same, prices could not possibly vary. Supply and demand cannot affect prices except indirectly and by their influence on competition.** As far as the determination of prices go, there is little difference in the fundamental idea as far as I can see. Competition was a part of the old law of supply and demand.

In discussing wages, the idea of demand is considered as the demand for a number of laborers at a specific price. The old idea was that capital constituted the demand for labor. In the Wages-Fund theory both the supply and demand were fixed. Thornton thought that the supply was fixed and the demand was not. Furthermore, an equilibrium between the whole supply and the demand was not necessary. The demand might equal only a part of the supply. As far as wages are concerned,

* Thornton, William Thomas, On Labour, p.59
** Ibid, p.59

competition determines the price of labor. Labor is offered unreservedly for sale because it will not keep. If its sale is postponed, the price of the labor during the period of postponement will be lost forever.* For this reason labor is at a disadvantage in bargaining. Competition depends upon the estimates formed of supply and demand by some dealer or group of dealers. Prospective demand consists not of one quantity but of many different ones. Thornton says there can be no equation between supply and demand, as the younger Mill had said, because each factor in the equation consists of a number of different quantities. He also said that the demand for labor was not affected by its price. Thus prospective supply and demand determine competition, but they do not do so in a uniform manner. Those people who sell their labor most cheaply will be influenced to a greater extent by the estimates of supply and demand than the other laborers will be. If there is no competition, then prospective supply and demand may be said to determine the price of labor.** Thornton contended that it was not necessary for all the supply of labor to be employed and that the price of labor would not fall until there was a demand for the whole supply. The price of

* Thornton, William Thomas, On Labour, p.69
** Ibid, p.64

labor depends on which party to the bargain is in the best position to take advantage of the other's need; there is no relation between the intrinsic worth of labor and the price.*

A bargain is not made between labor and something differing from labor in essence; the bargain is made between "two different kinds of labour, earlier and later, past and present. Consequently in the labour contract, labour in the concrete cannot be benefited by the success of either side".** This is a new idea which was later developed by Böhm-Bawerck, Mr. Taussig and others.

The direct attack on the existence of the Wages-Fund theory was short in comparison to the attack on the law of value. Thornton did not deny that wages are paid out of capital but he conceived of capital as consisting of money. If there were a Wages-Fund, he argues, it would consist of numerous money funds in the hands of the individual employers. There are no such funds so there cannot be an aggregate fund. All the expenses of every sort are paid out of the aggregate amount of capital the employer owns but no particular sum or portion of this total is set aside for the payment of wages.

* Thornton, William Thomas, On Labour, p.121
** Ibid, p.136

Thornton believed that any wage which was ultimately arrived at was a just one, no matter how high or how low it might be. There is no price of labor to which the laborer has a right. A just price is that one which the laborer has agreed to accept; and the employer, to give. The wage that is ultimately arrived at depends more or less on the cost of production of labor but wages may fall below this level without violating the rights of labor. Wages cannot remain below the cost of production level for long, however, but they need not necessarily rise above that cost.

The downfall of the Wages-Fund theory really dates from Thornton's attack upon the doctrine because he convinced John Stuart Mill that the old wage theory was fallacious. After Mill recanted, the Wages-Fund theory was less firmly adhered to and came to be finally discarded. Thornton's arguments are open to considerable objection but the weaknesses of some of his statements were overlooked or, at least, they were not commented on until some years later. In the first place Thornton was considering a money Wages-Fund instead of one of commodities, as Longe had done. Mr.Taussig believes that these two men were led into this error by the younger Mill's carelessness in speaking of the composition of this fund. Thornton

also maintained that the demand for labor was independent of price. The employers determined how many laborers they would need and then tried to secure this number at as low a price as possible. This was an erroneous notion because price does affect any demand, including the demand for labor. In spite of these defects in his arguments, Thornton was a powerful factor in the downfall of the Wages-Fund Theory.

Thornton's refutation of the Wages-Fund theory elicited a reply from the foremost exponent of the theory at that time, John Stuart Mill. In May and June of 1869 two articles were published by Mill on Thornton's book On Labour. Thornton believed that he had destroyed the old idea of the law of value. Mill in these articles says that Thornton has not invalidated the old theory but has only added to it. As a matter of fact Thornton had shown the weaknesses of the old law of supply and demand but had not succeeded in destroying it. With Thornton's arguments in mind Mill was able to qualify the old theory so that it would no longer be open to these objections. Mill said the correct law was that supply and demand sets the limits within which prices may vary. Mill admitted that the accepted laws did not apply to a market where there were only a few buyers and sellers but in his opinion this was an

exceptional case. Thornton in his examples had cited cases where a part of the whole supply had been kept back to maintain a high price. Mill said this did not disprove the law because to "reserve the price is no more than to withdraw a quantity from the supply".* In differing from Thornton's ideas on these laws of supply and demand, Mill changed and qualified some of his statements. He now says that economists mean, when they say that the market price is determined by demand and supply, that whatever the price turns out to be, it will be such that the demand at that price and the supply at that price will be equal to each other. This would seem to indicate that the supply and demand may be equalized though the price may be any one of a series, -- this contradicts earlier statements of his that supply and demand are equalized at some one point.

In the application of the laws of supply and demand to the wage, Mill agreed with Thornton because he recognized that both the supply and demand are fixed in the Wages-Fund theory. Labor is one of the cases to which the law does not apply. Thornton had objected to the demand side of the Wages-Fund theory. Mill agreed that "the law of wages on the demand side amounts only to the obvious proposition that the employers cannot pay away in

* Mill, John Stuart, Fortnightly Review, May 1869, p.512

wages what they have not got".* The demand is not a fixed factor, nor inevitable. Laborers receive wages which are determined by competition but they do not compete for a share of a given Wages-Fund. Mill agreed that the employer could curtail his own personal expenditures and use the result of his economies to increase the sum to be spent in the payment of wages. The doctrine that trade unions could not raise wages was case aside. Mill differs on the subject of the just wage. He says, "The only fund out of which as increase in wages can come is out of profits when the laboring class is considered as a whole".** If the laborers press whatever advantage they may have to extremes, the rights of the employer are infringed on. On the other hand it is quite as unjust for the employer to force the workers to accept an extremely low wage. According to Mill each party to the bargain has a duty to the other.

John Stuart Mill's recantation of the Wages-Fund does not seem to have sufficient grounds. The doctrine he recanted was not the one he had previously held.

Economists during the next few years differ among themselves as to whether the Wages-Fund theory is valid

* Mill, John Stuart, Fortnightly Review, May 1869, p.518
** Ibid, June 1869, p.613

or not. John MacDonnell who published A Survey of Political Economy in 1871 was evidently influenced by Mill's recantation. He denied the rigidity of the Wages-Fund and asserted that "the only physical limit to the amount paid in wages and salaries is the wealth in existence; the only moral limit is that set by the necessity of the owner of capital receiving encouragement enough to make them save".* This writer came to the conclusion that a general law of wages was an impossibility; "each kind of labour must be considered by itself, and its value, as far as laws and other contracting agencies do not prevent, like the value of commodities, will, when there is a perfect freedom of contract, depend upon the demand for the particular service and the supply of labourers capable of performing it."** MacDonnell confined his comments to a Wages-Fund of money.

Thomas Brassey in Work and Wages believed in what seems to be a qualified Wages-Fund theory. His view was that of the capitalist rather than of an economic theorist. Wages are determined by supply and demand. The rate of wages depends on the varying demand for labor but within limits: the maximum is set by the necessity of a fair return to the capitalists; and the minimum, by the

* MacDonnell, John, A Survey of Political Economy, p.268
** Ibid, p.270

lowest wage which will maintain the laborer and his family. He does not assert or deny the rigidity of the Wages-Fund in his discussion of the theory of wages. Trade unions are condemned as agents to raise wages. All that a union can do is to anticipate a coming increase in wages. In practice the Wages-Fund was more or less rigid. In a later edition of this book, edited by Sidney Chapin and published in 1908, Lord Brassey had changed his views on wages; he supported the marginal productivity theory with certain reservations. In this later edition he concedes that the trade unions have the right to resist any unreasonable reaction of the forces of supply and demand upon their wages.

Credit was emphasized by Henry Macleod as a factor which could be used to increase the aggregate wages which could be paid.* He too, as other men of the period, conceived of wages as being paid out of money funds and paid no attention to real wages. An elastic Wages-Fund is upheld by this author; he considered the Wages-Fund to be the price which consumers pay for products and that, due to credit, the Wages-Fund is formed in anticipation of the price to be paid by the consumers. The advantage of credit is that it increases the available Wages-Fund many times and makes it elastic.

* Taussig, Frank W., Wages and Capital, p.245, for this discussion of Macleod.

An American, Arthur Latham Perry, published Elements of Political Economy in which the orthodox Wages-Fund theory is upheld in general. In the thirteenth and revised edition of this book which was published in 1875 (this book was originally published in 1866 but I have not read this edition) he makes the statements which are referred to in this thesis. Perry accepted the law of supply and demand, and applied it as the factor which determines the average rate of wages. The familiar formula that the average rate of the wages of common labor will depend on the number of laborers compared wifh the amount of capital present is found in the discussion of his theory of wages. That part of capital which is available for the payment of wages, strictly speaking constitutes the demand for laborers. "The portion of capital designed for the payment of wages may increase under the influence of an increased desire for laborers and an increased desire for laborers is a necessary consequence of the increase in the aggregate capital".* This is the idea that capital is itself a demand for labor which has been sought in the writings of the earlier economists. Perry interprets this statement so that it no longer has the significance it once had. It is true that capital creates a new demand for labor

*Perry, Arthur Latham, Elements of Political Economy, p.151

but it does not necessarily mean that the Wages-Fund will increase. If there is an increased competition among the workers, and capital is increasing, it is quite possible that the Wages-Fund will fall, or remain the same. Perry evidently had given up the idea that the Wages Fund is distributed among all the laborers who seek work by competition; it is divided among a part of the laborers -- the employed. "The size of the wage fund is determined by the productiveness of labor and by the division under free competition, between wages and profits."*

Perry differs sometimes from the orthodox doctrine in respect to the rigidity of the Wages-Fund.

> "The wage fund is not to be conceived of as rigidly determined in amount by the employers before hand, because they intend to get appropriate labor for the least that they can, and only to pay whatever they must; nor is it to be conceived of as a stock entirely created already, because employers expect that the wage will ultimately come out of the product of the present work".**

In this statement one can see that the rigid Wages-Fund

* Perry, Arthur Latham, Elements of Political Economy, p.154
** Ibid, p.152

theory has been discarded, -- the workers no longer receive the entire Wages-Fund possible, the Wages-Fund is no longer predetermined -- it is determined at the moment by competition. He also questions the validity of saying that wages are paid out of capital; but one should notice that he is discussing a money Wages-Fund. Perry does not take up the relation of the money Wages-Fund to that of commodities. The Wages-Fund seems really to be the sum of all the money wages which are paid to laborers; this is not a solution to the problem of what determines the average rate of wages. On the same page on which Perry indicates that the Wages-Fund is elastic, he makes the following remark:

> "---- nevertheless, so far as industrial enterprises are carried on intelligently, whether wages are provisionally advanced out of an existing fund to be replaced from the current products or await the realization of these products, there is in effect what has been called a wages-fund, and the current rate of wages of common labor at any time and place is determined by the division of the wages-fund among all the laborers who compete for it".*

Here is the old notion that the whole Wages-Fund would be distributed among all the laborers who compete for it. The Wages-Fund for a given time is considered to be rigid.

* Perry, Arthur Latham, Elements of Political Economy, p.152

In the practical application of this theory, Perry thought that the Wages-Fund was quite rigid. Both combinations of workers and wage legislation is condemned as an "utter misapprehension of the law of wages."* Perry, in general, upheld a rigid Wages-Fund theory though some of his statements are not consistent with this belief.

Cairnes, a follower of the Ricardian theory, attacked the refutations of the Wages-Fund theory as they had been made by Longe and Thornton. John Stuart Mill's original statement of this wage theory is somewhat modified and advanced as the true theory of wages in general. Longe had said that an economist had no right to speak of "general wages". This is contradicted by Cairnes who says that one has just as much right to speak of "general wages" as to speak of "general prices". The statement of the Wages-Fund is similar to that of the younger Mill's before he recanted. Cairnes says that wages do depend on the proportion of the Wages-Fund to the number of the laboring population and that the amount of the fund is determined by the amount of the general wealth which is applied to the direct purchase of labor whether for productive or unproductive purposes.** Cairnes understood that predetermination is implied in this theory through the

* Ibid, p.159
** Cairnes, John Elliott, Some Leading Principles of Political Economy Newly Expounded, p.186

investors' interests which operate to determine the proportion of capital which could be applied to the payment of wages. Here Thornton is contradicted because he had stated that no part of the nation's wealth was predetermined for the payment of wages. Cairnes believed that "the total amount of wealth that is determined toward the payment of wages varies not simply with the progress of the national wealth, nor yet with the progress of the national capital, but with this later circumstance taken in connection with the character of the national industry, the result being also within narrow limits modified by the supply of labor".*

The Wages-Fund really consists of two parts: the larger portion comes from a part of the general capital of the country and the smaller from that part of a nation's wealth which goes to support unproductive labor.** Cairnes considered wealth to consist of three parts: fixed capital, raw materials and Wages-Fund. The Wages-Fund bears no constant relation to either of the other parts nor to capital as a whole. The fund for the payment of wages could be increased by increasing the total amount of

* Cairnes, John Elliot, Some Leading Principles of Political Economy Newly Expounded p.204

** Ibid, p. 196

capital or by changing the distribution of that already invested in the factors of production.* The possible Wages-Fund is limited by the cost of production of both capital and labor. In discussing the composition of the Wages-Fund Cairnes sometimes hints that the funds for the payment of wages have some elasticity. He also believed that the Wages-Fund was an aggregate of smaller funds in the hands of the capitalists who employ labor.

Whatever the size of the Wages-Fund, Cairnes thought, it will be distributed among the laborers in the various occupations in the proportions which are indicated by the demand for commodities.** The rate of wages varies inversely with the supply of labor, if other things are equal. If, when the population is increasing, capital remains the same, the average rate of wages will decrease. He came to this conclusion because he thought that, if more men are employed, additional tools and materials will be needed for their use and a portion of the Wages-Fund will be transferred to the fund for materials and tools to provide the additional laborers with the means of doing work.

Cairnes was pessimistic about the possibility of bettering the worker's lot; he believed that the condition of labor must decline because the Wages-Fund decreases in proportion to capital as a whole, though the laboring classes

* Cairnes, John Elliot, Some Leading Principles of Political Economy Newly Expounded, p.258
** Ibid, p. 192

do not increase at a different rate from the rest of the population. It was his belief, as it was the younger Mill and Fawcett's, that the working men could contribute to a common fund and invest it in some enterprise. Thus the laborers could derive part of their income out of profits; their total income would increase with the gains of society as a whole rather than decrease, as would be the case, if they were dependent on their wages alone. This increase even though derived from profits would have its limits because the means of subsistence do not increase as fast as human beings. In this statement Cairnes discusses a money and also a real Wages-Fund at the same time. Ordinarily he speaks of a Wages-Fund of money and neglects the orthodox conception of a fund composed of subsistence for the laborers. If, as he now implies, the funds for the payment of real wages are limited, to what extent does an increase in the money wages affect the real wages which are distributed to the laborers? He did not answer this question.

In his discussion of trade unions, it can be seen that Cairnes held one form of a rigid Wages-Fund theory; the fund for the payment of wages was rigid over a period of time but not at a specific moment. Wages might be raised temporarily but not permanently by the unions. Due to his conception of the Wages-Fund theory, Cairnes did not believe

that trade unions could really raise wages, but they might anticipate an increase which would ultimately have come without the union's intervention. Ordinarily, however, profits are at a minimum and the attempt to raise wages defeats its own purpose because it checks the accumulation of capital. In industries where profits are low, a strike only diminishes the Wages-Fund. As to the rigidity of the funds at a given moment, Cairnes never really gives a definite answer but one infers that it is an elastic fund. If this is true, Cairnes did not maintain the Wages-Fund theory that Longe and Thornton attacked. In fact Cairnes agrees with Longe and Thornton to a greater extent than he would probably have admitted.

The Wages-Fund theory as it is considered here differs to some extent from that expressed by the earlier advocates. In Cairnes' theory wages are the residual but Ricardo considered profits to be the residual. The usual idea of rigidity was that the Wages-Fund was inelastic for a given period of time; but Cairnes thought that the funds were relatively elastic for these periods, and inelastic over long periods of time. Cairnes changed the old Wages-Fund theory so that he could support it and then attacks Longe and Thornton for attacking the orthodox doctrine.

Francis Amassa Walker, an American, completed the downfall of the Wages-Fund theory in the Wages Question (1876) despite Cairnes' attempt to modify the doctrine so that it could be accepted. Walker, just as Longe and Thornton had done, confined his attack to a Wages-Fund of money. This last refutation exphasizes that wages are not paid out of capital. Hitherto the attacks had been confined to the rigidity of the fund, its predetermination or the application of the law of supply and demand to wages.

That wages are paid out of capital is denied by Walker. He believed that this premise of the theory had been accepted originally because in England, at the time when the theory originated, employers had accumulated capital to such an extent that they could pay out of capital the wages for the laborer's service as soon as it was rendered.* The laborers on the other hand were paid such low wages that they were not able to accumulate anything out of their earnings and were obliged to rely on their employers for subsistence. Though these conditions existed in England, there was plenty of evidence in the United States that wages are not always paid out of capital. Walker concludes that industrial conditions determine the amount of wages but

* Walker, Francis Amassa, Political Economy, p.366

that financial conditions determine the manner and the time of payment, -- this explanation accounts for the early differences in the manner of the payment of wages in England and the United States.* Even if it were ture, and it is not according to Walker, that all wages "were paid as soon as the service was rendered, before the crops were harvested or the goods marketed, it would not follow that the existence of capital furnished the reason for the employment, or that the amount of that capital furnished the measure of the wage to be paid".** Walker objected to the idea of demand which was essential to the old Wages-Fund theory. Because an employer has more capital, it does not follow that his demand for labor will increase to the extent of the increase in his capital. The demand for labor will not increase unless the employer is assured of his profits.

The Wages-Fund theory was objected to because it does not give weight to the industrial quality of the laborers in the determination of wages at the time they are working. The Wages-Fund theory held that an increased productivity of labor would increase the future Wages-Fund and not the present one. He did not agree that an unnecessary reduction in wages would be corrected ultimately because the increased profits would be invested in industry and would in the end

* Walker, Francis Amassa, The Wages Question, p. 141
** Walker, Francis Amassa, Political Economy, p. 316

be used for the payment of wages as Cairnes and Perry had believed. Unjustly increased profits may be spent to purchase an estate or to buy fine horses and thus the Wages-Fund would never obtain the share which it had been cheated out of.

Walker himself believed that it is "the value of the product, such as it is likely to prove, which determines the amount of wages which can be paid."* Production and not capital furnished the motive for employment and the measure of wages. The amount of the wage which can be paid is some part of the product of industry. Since this, is true, the amount that can be paid depends on the quality of the laboring class. The more productive labor is, the more they can demand in wages. Though both the amount of capital and the number of the laboring class remain stationary, an increase can take place in the total amount of wages paid. According to his theory of distribution, "wages equal the product of industry minus three parts already determined in their nature and amount" -- rents interest and profits are deducted.** The weakness of his theory lies in the fact that he never inquires into the causes which determine the three factors but assumes that they can be determined. The three factors are supposedly fixed by economic considerations independent of the product of industry. Wages

* Walker, Francis Amassa, Political Economy, p.316

** Ibid, p.248

are the residual after the other three factors in production have been deducted. Wages are paid out of the product of industry but they may be advanced out of capital, though not necessarily out of the employer's capital. He denied that the self-interest of the employer would keep wages from falling too low, but he did admit that public opinion could become a force in determining the rate of wages.*

This economist too confines his attack to a money Wages-Fund theory. He goes further than the other writers of the third period and denies that wages are paid out of, though they may be temporarily advanced from, capital. There is however no relation between wages which may be advanced out of capital and the amount of capital. The relation of money and real wages is not taken up, -- he does not say whether the real funds for the payment of labor are determined or not. His own theory of wages -- a productivity theory -- became very popular. He maintained that wages are paid out of current product and are a residual share. Walker did not analyze the process of production in sufficient detail to see that wages are paid out of the product of past labor. He was misled by confining his attention to money wages and considering in practice that current

* Walker, Francis Amassa, The Wages Question, p.58

product and the price that consumers paid for the product of their labor were synonymous. Walker, however, pointed out some of the inherent weaknesses in the Wages-Fund theory. He saw that the quality of the work done by a laborer has some effect on the wages he receives, -- this fact was ignored in the Wages-Fund theory. Reasoning from this discovery he arrived at one form of the productivity theory.

Henry George, another American writer, also discarded the Wages-Fund theory in favor of a productivity theory. He did not believe that wages are paid out of capital though in some cases they are drawn out of capital. Wages are really never advanced out of capital by the employer because the employer, in paying wages, only exchanges one form of capital for another. Laborers are paid out of the product of their labor. He believed that this statement was further proved by the fact that wages are paid after labor has been performed and are therefore not an advance. "The payment of wages is always conditioned upon the rendering of labor, the payment of wages in production, no matter how long the process, never involves any advance of capital or even lessens capital".*

Henry George stated that the Wages-Fund theory did not tally with the obvious facts. In the old doctrine wages and

* George, Henry, Progress and Poverty, p. 159

interest were high when wages were. Stebbins, who commented on George's Progress and Poverty, points out that since 1869 wages had increased while the rate of interest had decreased and that Henry George was not cognizant of the facts of history. George's discussion of the Wages-Fund does not seem to be supported by as good arguments as President Walker's had been.

This American writer believed that wages are paid from the product of labor for which they are paid. He states his law of wages thus: "Wages depend upon the margin of production, or upon the produce which labor can obtain at the highest point of natural productiveness open to it without the payment of rent."*

Though the Wages-Fund theory was discarded in this period it was not discarded immediately, even after Walker had published The Wages Question. Davis in 1878 published Labor and Wages in which a rigid money Wages-Fund is upheld without qualification. The theory, as the author explains, is based on John Stuart Mill's statements before he recanted. "The money used to pay the wages of labor is termed the wages fund" and wages are regulated by the

* George, Henry, Progress and Poverty, p. 192

number of laborers and the amount of the Wages-Fund.* He believed that average wages are ultimately fixed by the productiveness of the labor employed. This is by no means a contradiction of the old Wages-Fund doctrine. "Total production is in the same ratio to individual production as the Wages-Fund is to proportional wages." Some of the older economists hinted at this idea of proportional wages to varying degrees but did not emphasize it to the same extent as Davis does. By emphasizing the proportional wage, Davis tries to overcome Walker's objection to the Wages-Fund theory: that the Wages-Fund ignored the effect of the productivity of the laborer on present wages. There was no element of elasticity to the Wages-Fund as Davis stated it.

Towards the end of the period there is little comment on the Wages-Fund theory, it is accepted as an erroneous theory which was once held. Schoenhof, in the Industrial Situation (1885), has very little to say on the Wages-Fund proper beyond the fact that it is a discredited theory. Francis Minton, an English economist, likewise considered that the Wages-Fund doctrine was obsolete. He believed that profits and wages could increase while the price of the commodity decreased; this situation could occur when the rapidity with which profits are made was accelerated.

* Davis, Charles Thomas, Labor and Wages, p. 24

During this period, the most important economists in connection with the Wages-Fund theory were Longe, Thornton, Mill, Cairnes and Walker. These men, with the exception of Cairnes, all contributed to the downfall of the Wages-Fund doctrine. The application of the law of supply and demand to the determination of the rate of wages, the rigidity and the predetermination of the funds of capital for the payment of wages, the fact that price governs the demand and finally the premise that wages are paid out of capital are all denied. All the arguments for and against the theory during this period are directed to a Wages-Fund of money. From time to time some writers on economic subjects published books in which the Wages-Fund theory is supported, though, to be sure, it is not the orthodox doctrine of a real Wages-Fund. These men however, had no success in trying to rehabilitate the old theory. There are as has been noted, objections to many of the arguments used to refute the long accepted doctrine. Despite all these weaknesses in the arguments, the Wages-Fund theory had been quite definitely displaced by a crude form of the productivity theory of wages by the end of the period.

In this third period, the subject of the trade unions and their functions were again the subject of much discussion. Longe believed that the trade unions could raise wages without causing unemployment to some workers in the industry.

He was not in favor, however, of great discrepancies between the wages paid in one industry and those in another; the true function of the union was to keep all wages up to a general level. Thornton, with whom John Stuart Mill agreed, saw no reason why, if trade unions did raise the rate of wages, the increase could not be permanent in the majority of cases. If the unions act discreetly, the employers in general will prefer to propitiate them rather than to engage in a strike.

Men, such as Brassey, Perry and Cairnes, who supported in varying degrees the Wages-Fund theory did not agree with the views of the men who attacked the doctrine. These men believed that trade unions could not increase wages, should not, or at the most could only anticipate an increase in wages which would have come without their intervention. Their attitude toward trade unions is very similar to that of the economists in the preceding periods.

Toward the end of this period, unions were more successful in raising wages than formerly, and economists are rarely found who oppose the unions entirely. The degree to which they approve combinations of labor depends on the theory of wages they maintain and whether their view is that of the theorist or of the industrialist.

While all this discussion as to the validity of the

Wages-Fund theory was going on, unions viewed the Wages-Fund with disfavor; and the employers, with favor. Henry George says that in 1879 the old wage doctrine was still generally accepted in the United States at least. This theory of wages was urged in support of protection. It was believed that free trade would allow foreign labor to compete for a share of the American Wages-Fund. Davis urged the restriction of Chinese immigration on the same account. In the second period of the history of this theory, in England, free trade was sometimes urged by the advocates of the theory to allow labor to be used more productively and thus increase the Wages-Fund. In the United States, in the third period, protection was urged to protect the rights of American laborers to the Wages-Fund from foreign competition.

Chapter IV

As the industrial organization developed, it became increasingly apparent that the Wages-Fund theory could not be considered to account for the determination of the rate of wages. For that matter, current forms of the productivity theory of wages did not apply to the situation either. The Austrian school of economists added to the dissatisfaction which existed in respect to the wage theories which had been enunciated. The theory of capital was re-stated by this school so that it made more apparent the manner in which income emerges from capital and the process of production was more keenly analyzed than it had been formerly. They furthermore developed the idea of marginal utility on which their theory of value was based. This school itself did not pay much attention to the problem of wages, but it laid the foundation on which a new theory of wages was to be based. On the basis of these new ideas, the Wages-Fund was re-evaluated and a new productivity theory of wages was constructed. Mr.Taussig to whom the credit for re-evaluating the Wages-Fund doctrine must be given is considerably influenced by the Austrian economists and especially by Böhm-Bawerk whom he often follows quite closely.

From 1890 on, economists began to perceive that there was some truth to the Wages-Fund theory.

The ideas of these two men, John Bates Clark and Herbert Thompson will be discussed but only the former of these two men was influenced by the Austrian school. Alfred Marshall in 1879 expressed a modern wage theory in which he called attention to a Wages - and -Profit Fund which bears some resemblance to the Austrian idea of a subsistence fund - that is from the point of view of the distribution of a money fund rather than of a fund of commodities.

Alfred Marshall, in 1879, agreed that there is no rigid Wages-Fund in existence. Wages depend not only upon the capital which the employer has, but also, and to a greater extent on the efficiency of the laborer's work.* In this respect Marshall gave weight to the productivity of the workers in the determination of their wages, and stated a modern wage theorym- the discounted marginal productivity theory. Marshall, as John Stuart Mill had done, regarded profits and wages alike as coming from the net produce of land, labor and capital after rent and taxes have been deducted.** After these deductions are made, the result is what Marshall calls the Wages - and - Profits Fund. This fund is determinate but the factors of which it is composed may vary in proportion to each other and to the total. The division of the Wages - and - Profits Fund was determined by competition;

* Marshall, Alfred and Mary Paley, The Economics of Industry, p.205

** Ibid, p. 204

profits and wages vary inversely to each other. A fall in the rate of profits tends to diminish the rate of growth of this fund, or at least to make it stationary. If the rise in wages promotes increased efficiency on the part of the laborers, then there will be no danger of a decrease in the total fund.

Marshall himself believed that a man's wages "tended to be equal to the discounted value of his labour."* Since however other factors beside capital enter into the discounted value of produce, he thinks "net return" is a better term to use. "Net return" of a man's labor is "the value of the produce which he takes part in producing after deducting all the other expenses of producing it".**

The ability of trade unions to raise wages is limited in that wages cannot be successfully raised above the value of the product of the worker's labor. There is however, a good deal of opportunity for wages to be raised within this limit. Trade unions can raise wages above what they would normally be, but they are in danger of being indiscreet and attempting to raise wages to a point where the rate of profits will be decreased. This decrease in profits will cause a decrease in the rate of growth of the Wages-and-Profit Fund so that the amount of wages which the laborers receive will be in the end lowered.

Later in his "Principles of Economics," Marshall states the discounted marginal productivity theory in more detail.

* Marshall, Alfred and Mary Pale, The Economics of Industry, p. 133
**Ibid, p. 133

The marginal productivity theory of wages, the result of the Austrian theory of value, was supported by John Bates Clark. He does not deny that there is a relation between capital and labor. Wages are paid out of the product of labor and are regulated by the productivity of the marginal man. Marginal productivity depends upon the proportion in which capital and labor are used in production.* If the population increases, and capital remains the same, wages will fall because the productivity of the marginal man will be lowered. In such a case the total product will be increased but not in proportion to the increased number of workmen. Clark said that "in overthrowing the Wages-Fund, economists have somewhat lost sight of the real function performed by capital in employing labor."** Increasing capital does act favorably on wages in that it increases the productivity of the marginal man and thus affects wages. His idea of the relation of capital and wages is quite different from the relation asserted in the Wages-Fund theory. In the over-throw of the doctrine, however, it was denied that there was any relation at all between capital and labor.

Thompson, in The Theory of Wages in Its Application to the Eight Hours Question (1892), discards the Wages-Fund theory for the doctrine he preferred.

*Clark, John Bates, The Modern Distributive Process, p. 136
**Ibid, p. 63

Yet this writer saw a grain of truth in the old doctrine: "--wages must often be advanced in this way (out of capital) in the first instance but it by no means follows that the advance represents the whole wage."* Thompson thought that any theory of wages which made one factor in production the residual of the other three was fallacious. He believed that the four agents of production were mutually interdependent. The share of the total product of industry any one factor receives is determined by the play of supply and demand. His theory "--assumes that wages, entrepreneurs' profits, interest and rent are all varying proportions of varying product of industry, and further that taken together they make up the expenses of production and that the expenses of the production of commodities are only one side of a shield of which the price of commodities is the other; consequently that price can be ultimately analyzed so as to trace therein the respective rewards granted to the various agents of production."** He seems to be arriving at the truth of the question of what determines the various shares the factors of production receive. He did not, however, analyze the process of production to see whether there was such a thing as a Wages-Fund or whether anything which resembled the subsistence fund of the Austrian school existed.

* Thompson, Herbert Melford, The Theory of Wages and Its Application to the Eight Hours Question, p. 16

** Ibid, p. 10

The present status of the Wages-Fund, and one which I accept, is essentially that of Mr.Taussig as he stated it in Wages and Capital (1896). For this reason little has been said in this thesis in criticism of the principles underlying the theory, the criticisms which would have been made would only repeat what Mr.Taussig has said. By an analysis of the general causes which affect wages and the relation of capital and wages, he gave the Wages-Fund theory a new evaluation and came to the conclusion that there was some degree of truth in the doctrine. From 1876, when Walker's the Wages Question was published, until 1896, the Wages-Fund theory was discredited as a theory of wages and it was almost entirely denied that there was any element of truth in it. It is true that even the attacks which had been made upon this wage theory were themselves open to objection because the economists who refuted the doctrine did not have a clear understanding of the problem itself. Mr. Taussig was not handicapped in this respect; his discussion is pertinent to the old orthodox theory and to the theory as the followers of John Stuart Mill had stated it. In his book a few chapters are devoted to the history of the theory, these chapters are a critique as well.

The advocates of the Wages-Fund theory were hampered by the economic conditions of their time in gaining a clear view of the general causes which affect the rate of wages, -- modern industrial conditions had not emerged with sufficient distinctness. Their conception of wages applied to only a part of the laborers, the common unskilled workers. Mr.Taussig believes that a true conception of real wages should be applicable to a part of the income of all laborers.* He defines wages "all reward for exertion" so that he includes different kind of exertion and varying causes for the different rewards.** Concrete wages, however may be a combination of wages and a return on the capital sunk in education.

Mr.Taussig differs from the old upholders of the Wages-Fund theory; he defines capital as standing for "inchoate wealth, for all the possessions which do not yet serve human wants."*** All forms of finished goods are enjoyable wealth and are called income. In his definition and view of capital Taussig is very definitely influenced by the Austrian school. The old fashioned view of capital included finished goods for the maintenance of the laborer.

* Taussig, Frank William, Wages and Capital, p. 35
** Ibid, p. 72
*** Ibid, p. 36

Under Mr. Taussig's definition wages are still paid out of capital but the notion of how this is accomplished has changed. "Income does not emerge finally from the stage of capital until the moment of purchase. In a sense we may lay it down broadly that wages are paid out of capital."* The reward of labor proceeds chiefly from the stocks in the hands of the retail dealers. In general real wages, at the time the work is completed, are in the inchoate stage, they are just on the point of emerging from capital into income and are in the shop-keepers' hands, -- this is considered to be the last stage in production.

The durable sources of satisfaction have been included in capital by many economists. These articles differ from machinery in that they are completed enjoyable things. One can enjoy the successive utilities of these articles without the expenditure of further labor. Such articles, Mr. Taussig believes are a part of income and belong to the distribution of the past.**

All real income is derived from money income in that all income first appears as a money receipt. Mr.Taussig considers the incomes of producers as the "primary sources

* Taussig, Frank William, Wages and Capital, p. 43
** Ibid, p. 52

of distribution; interest payments, rent payments, wages of hired laborers are derivative and its recipients may be described as dependent."* Laborers are the most dependent of the classes getting derivative incomes because their contracts are renewed at short intervals of time. It must be understood in this connection that the total money income is by no means the same as the money price of the whole output of the community. The latter is much larger because it not only includes the real income but also the capital which is being steadily produced.

The total money income is not fixed; loans may be made to increase the medium of exchange. The causes which determine the advances of a part of the capitalists' funds to labor do not operate as rigid laws. The immediate employers are not the only group which determines the disposal of the gross income; lenders, idle investors and middlemen have some voice in the matter. There are however some limitations to the amount of the total wages an employer can pay. He must make certain payments to investors, landlords and banks; they must buy raw materials and tools though not in any rigid ratio to their total expenditures. Wholesale dealers also help to determine the amount of the wages which can be paid. "While the individual employer,

* Taussig, Frank William, Wages and Capital, p. 75

supported as he is by the multiform apparatus of credit and connection, is not compelled to make any hard-and-fast apportionment of his directly available means between these different uses, the body of employers must divide their purchases and advances in a manner which is determined in its main lines by the state of the arts and the succession of productive operations."* An increase in money wages is, however, of no advantage unless more commodities can be bought. As far as the money wages of hired laborers go, there is nothing to prevent the trade unions from securing an increased rate of money wages. If a considerable number of laborers secured a very great increase in the amount of their money wages, for a time at least it would be to the detriment of other laborers because the total amount of wages which can be paid is not indefinitely expansible. The accidents of a particular situation, the contracts of employers, the state of the market and the strength of the contending parties, all these conditions may act to prevent an increase in wages. He concludes that "for a season the resources immediately available for capitalists in the employment of laborers, while obviously not indefinitely

* Taussig, Frank William, Wages and Capital, p. 84

extensible, are not limited or predetermined and that the money Wages-Fund which goes to laborers is not a rigid one."* To a certain extent Mr. Taussig agrees with the conclusions of Longe and Thornton as to the rigidity of the money Wages-Fund. Mr. Taussig, however, handles the problem much more ably and with a great deal more insight into the general problem of distribution.

The next question which Mr. Taussig considers is that of whether the real wages all workers receive are rigid or not. The difficulty with the conception of this fund as it was expressed by Ricardo and his followers was that they thought of this fund simply as food in the hands of the immediate employers and as applicable only to the wages of common labor. Mr. Taussig objects to this conception because laborers consume other commodities beside food, and the direct employer of labor owns neither the food nor the commodities which eventually make real wages. This fund should also be considered to be applicable to the payment of all wages, as Mr.Taussig defines the term.

"All wages are paid out of the product of past labor" which exists mainly in the form of real capital.** This is the source from which "all laborers, hired or not hired,

* Taussig, Frank William, Wages and Capital, p. 105
** Ibid, p. 82

and all capitalists, and all members of the community get the income of the present and of the immediate future".* Here Mr. Taussig has increased the scope of the old Wages-Fund theory. This application of the Wages-Fund is the same as that of Böhm-Bawerk's subsistence fund. The statement that wages are paid ultimately out of the produce of industry was quite frequently made by the economists who maintained the Wages-Fund theory, but the processes of production and distribution were not analyzed sufficiently for these economists to see the implications of this statement. The economists of the Classical school considered the "product of industry" to be a fund of finished goods available for use at the moment, a fund which would be replaced in the future. Mr. Taussig conceives of real wages to exist in the main in the form of capital as he defines the term at the time the work was done for which wages were paid. "The community possesses at any given moment a quantity of goods in all stages of completion -- we have no great stores of completely finished goods but a steady flow of accruing income."** He admits that durable commodities in some cases have the characteristics of a fund but that perishable com-

* Taussig, Frank William, Wages and Capital, p. 49
** Ibid, p. 20

modities, and durable commodities to a certain extent, are constantly emerging from capital to the finished state.

There are some limits to the supplies of finished and half-finished goods, that is "real income which can be secured and enjoyed is in some degree predetermined in quantity and quality".* The real income of society for a given period of time is less than its output because effort is expended on articles in varying stages of production which will be finished at various points in the future.** "The share of real income which shall go to wages in general, or to wages of the great mass of manual laborers, is to some extent predetermined by the character of the commodities on hand or in the making. But in no small degree it is indistinguishable and inseparable, forming part of a mass of things that may be diverted to one set of persons or another according to their command of money income for the time being."*** The present output consists of goods not yet in enjoyable form. The amount of real income is fixed within limits by the fact that "the machinery of production is arranged for the supply of the habitual and anticipated wants of society."**** The supply of available goods can be

*Taussig, Frank William, Wages and Capital, p. 59
** Ibid, p. 14
*** Ibid, p. 93
**** Ibid, p. 59

stretched to some extent. If a sudden large increase in consumption should take place, however, a scarcity would follow. Though the productive powers of society were increased, it would not be of immediate assistance in relieving the situation because the articles produced would not attain enjoyable form until some time in the future. The Classical economists expressed a belief very similar to this of Mr. Taussig's; they stated much more positively that an increase in the productivity of labor would only serve to increase the future Wages-Fund.

The conclusion which Mr. Taussig finally makes is that "in a sense, wages of hired laborers depend on a Wages-Fund -- on sums which the employers judge it expedient to turn to the hire of labor; in another sense all workmen, independent or dependent, depend on a Wages Fund -- all real income is derived from consumable commodities which for any extent of time exists mainly in the form of inchoate wealth. Real income of all members of the society come from past product, and in the main from real capital."* As to the rigidity of the real Wages-Fund, he says that neither the money Wages-Fund nor the real Wages-Fund is rigidly predetermined but both are predetermined to some degree. Furthermore he believed that in practice the increase of

* Taussig, Frank William, Wages and Capital, p. 256

wages secured by trade unions have never brought about an offsetting decrease in the wages of the workers who were not affected by the increase.

Mr. Taussig proceeds to discover what truth there may have been in the old Wages-Fund theory, but he starts with a definition of capital different from that expressed by the advocates of the orthodox doctrine and a much keener analysis of industrial operations, -- an analysis for which he is much indebted to Böhm-Bawerk. He comes to the conclusion that there is what might be called a money Wages-Fund and a real Wages-Fund, neither of which is rigidly determined. Moreover, wages, in one sense, are paid out of capital, -- this applies to the real wages of all workers rather than to a particular class. These conclusions are considered, and really seem to be, a correct statement of the truths or partial truths which had existed in the old fashioned conception of the Wages-Fund. These same conclusions were hinted at or actually reached by the Classic economists. Since these truths were based on fallacious premises, as they were formerly expressed, they could not withstand the attacks of Longe, Thornton and Walker. Once Taussig had restated the premises and arrived at similar conclusions, but by a more precise and keener analysis, these truths have come to be accepted.

The re-evaluated Wages-Fund must not be considered as a theory of wages, it is only a statement of underlying truths which must be considered in any wage theory. Mr. Taussig himself supports what he calls a discounted marginal productivity theory. He does not believe in the specific productivity of labor and capital but in the joint productivity of all labor. Wages are regulated by the marginal effectiveness of labor, in which term we include both capital and labor. Wages must be discounted because they are an advance of capital, -- the employer does not market the worker's output before he pays wages. The maximum limit of wages is set by the Wages-Fund.

After Mr. Taussig published Wages and Capital, little is said about the relation of any form of the Wages-Fund to the determination of the rate of wages. Thereafter when any early form of a wage theory is mentioned, in relation to the determination of wages, it is usually the subsistence doctrine which is emphasized in relation to some form of the productivity theory. Both Seligman and Hobson agree to the truths in the Wages-Fund theory but both emphasize the importance of the subsistence theory in relation to the doctrine of wages they support. Neither of these economists explain the relation of the Wages-Fund to their wage theory.

There is one exception to the statements which have been made as to the place of the re-evaluated Wages-Fund in the period after 1896. Mr.Kleene, an American professor, believes that the Wages-Fund is the only explanation of the general wage level in contrast to the particular wage. His wage formula is simply expressed thus: "The size of the Wages Fund or the supply of capital as we conceive it, together with the supply prices of different quantities of labor, determines the general level of wages."* Capital is defined as "subsistence maintaining labor in the long process of production and advanced to the laborers out of past product by the capitalist class."** This economist differs from the orthodox supporters of the Wages-Fund theory in that he considers the supply of labor as flexible with a gradually rising scale of supply prices. There is no proof that there is a given amount of capital, so he says, but it must be assumed in the theory of distribution. He believed that there was a fund all of which must be invested and whose size was an important determinant of the rate of wages. When the stage of production has been reached which is not likely to be changed by invention, the Wages-Fund can be regarded as a fairly definite proportion of the total funds for investment. Torrens also believed that there was a point where wages could not increase despite an increase

* Kleene, Gustav Adolph, Profits and Wages, p. 158
** Ibid, P. 11

in capital. Torrens, however, believed that resorting to inferior soils would eventually cause such a situation to arise. In any stage the demand is not indefinitely extensible; employers have no choice in the use of the Wages-Fund except between different uses of the same thing. There will be an attempt to use the whole fund for wages. That is, the rate of wages is not rigidly determined, -- the Wages-Fund can be used in other ways in the process of production than to pay wages. For a short period of time there is a predetermined possible total fund but he does not say that the amount of wages is rigidly determined. However, when the stage of maximum productivity has been reached, the level of wages is determined by the amount of the Wages-Fund and the number of laborers alone. Productivity has only a permissive influence on the accumulation of capital. He agrees that individual wages are graded by productivity but not that wages are equal to the marginal productivity of labor (or the marginal productivity discounted). Productivity does not directly determine the absolute as well as the relative scale of payment.

Professor Kleene has admitted that the possible Wages-Fund is not always wholly exhausted. If this is true there must be some other factor which has a direct role in determining the average rate of wages -- he, however, denies this.

Mr. Taussig's analysis seems to be a much more probable one.

Chapter V

The object of this thesis has been to follow historically the development of the Wages-Fund doctrine rather than to criticize it. What criticisms there are to make have been made more or less in accordance with Mr. Taussig's presentation of the theory as it is given in Wages and Capital. To follow the historical development of this theory is by no means a simple task. One is impressed by the vagueness with which the doctrine is stated during the period when it was maintained. Economists then contented themselves with a formula which could be interpreted in more than one way. The interpretation which a given economist gives to the formula has to be deduced from statements which he makes in other sections of his book, -- even those which apparently have nothing to do with the subject of the determination of the rate of wages. This would be a comparatively easy task except for the fact that the classic economists were not consistent in the interpretation which they gave to the formula. The problem has been to weight the scattered statements which pertain to wages to arrive at what the economist probably thought about wages, or generally thought. From John Stuart Mill through the period when the theory was attacked, the discussion is not pertinent to the Wages-Fund as it was expressed by most of the Classical economists.

In the period when the Wages-Fund doctrine was in the process of development, the subsistence theory was the prevailing doctrine of wages. Wages were considered to be paid out of capital, out of a fund of subsistence. The fund, however, was not necessarily exhausted; it was a possible fund for the maintenance of labor.

Ricardo gave the first complete expression to the orthodox theory of wages. Wages were paid out of capital, a fund of commodities for the maintenance of labor. The extent of this fund was limited and was completely exhausted for the payment of wages. The rate of wages was determined by the extent of this fund and the number of laborers who competed for it; the Wages-Fund divided by the number of laborers gave the average rate of wages. This theory applied only to common unskilled laborers. The followers of Ricardo at times differ from this statement of the Ricardian theory but in the end they revert to it even though unconsciously. There is one difference between Ricardo's doctrine and that of his followers: Where trade unions are concerned, wages are not rigidly determined according to the later Classicists though they agree with Ricardo in the sections on wages. John Stuart Mill emphasized a money Wages-Fund in his discussion of wages but he in reality maintained a real Wages-Fund. Due to his carelessness in speaking of the composition of the fund destined for the payment of wages, the discussion of the theory during the next half century turned on the

rigidity of a money Wages-Fund.

The theory was attacked by Longe, Thornton, and Walker. The result of these attacks denied that wages are paid out of capital, that there is any rigid predetermined fund in existence for the payment of labor, that the laws of supply and demand have any effect on the rate of wages, and that price has no effect on the amount of labor hired. During this period, there were attempts to restate the doctrine, but to no avail.

For the first three periods during which this theory was upheld to varying degrees as the factor which determined the rate of wages, there has been an attempt to link the attitude of the wage theorists to the economic questions of the day. This has been by no means an exhaustive study, but one that is indicative of the attitude of the economists to these problems. The main topic to which the Wages-Fund theory was related was that of the ability of the trade unions to raise wages. As the unions became stronger and actually did raise wages without causing any corresponding decrease in the wages of other laborers, the economists gradually gave up the idea of a rigid Wages-Fund at least in connection with the unions.

Mr. Taussig has given to the Wages-Fund theory its present status. There are some elements of truth in the old doctrine: wages are paid out of the product of past labor and in one

sense out of capital, and there are money and real Wages-Fund which are predetermined to a certain extent. The wages of all laborers, mental or manual, dependent or independent, come out of the real Wages-Fund. These truths do not constitute a theory of wages, but they do show the process by which wages get into the hands of the laborer, and they also have the effect of limiting the possible rate of wages. The determination of the rate of wages must depend on some other theory, but one which is based on these truths. Mr. Taussig established the present status of the Wages-Fund. There is now little mention of the relation of the Wages-Fund, to a theory of wages except in Professor Kleene's book where the Wages-Fund is given too great emphasis and made a theory of wages.

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